SONY

SONY DSC-D700

3-865-496-**12** (1)

Digital Still Camera

Operating Instructions

Before operating the unit, please read this manual thoroughly, and retain it for future reference.

Owner's Record

The model and serial numbers are located on the bottom. Record the serial number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.
Model No. DSC-D700
Serial No. _____

MEMORY STICK

DSC-D700

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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.
To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

CAUTION
Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer's instructions.

For the customers in the U.S.A.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

This device requires shielded interface cable to comply with FCC emission limits.

For the Customers in the U.S.A. and CANADA

DISPOSAL OF LITHIUM ION BATTERY.
LITHIUM ION BATTERY.
DISPOSE OF PROPERLY.
You can return your unwanted lithium ion batteries to your nearest Sony Service Center or Factory Service Center.
Note: In some areas the disposal of lithium ion batteries in household or business trash may be prohibited.
For the Sony Service Center nearest you call 1-800-222-SONY (United States only).
For the SONY Factory Service Center nearest you call 416-499-SONY (Canada only).
Caution: Do not handle damaged or leaking lithium ion batteries.

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Battery Safety Precautions

Follow the safety advice below to avoid leakage, internal heating, fires, explosions or accidental ingestion of batteries.

DANGER (This applies only to battery packs)

- Only charge the battery with the supplied charger.
- Do not put the battery into fire. Do not short it out or dissassemble it.
  Do not heat in a microwave or conventional oven. If you carry or store the battery with metal objects such as coins or hairpins, shorts may occur.
- Do not recharge or leave the battery pack near fire or under the hot sun.
- If you accidentally get liquid that has leaked from the battery in your eyes, flush with clean water and consult a doctor immediately.

WARNINGS

- Keep the lithium button battery out of the reach of children. In the case of accidental ingestion, consult a doctor immediately.
- Do not put the battery into fire. Do not short it out, disassemble or heat it.
- Use only the specified type of battery.

NOTES

- Be sure the + or - signs are aligned correctly when inserting the battery.
- Remove the battery when it is empty or if the camera is not used for a long time.

If battery leakage occurs, wipe the battery case dry and insert a new battery. If liquid from battery leakage happens to get on your clothes or body, wash well with water.

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer’s instructions.

Operation Precautions

Places you should not leave your camera

Do not operate or store your camera in places such as those listed below.
Doing so may lead to the breakdown of your camera.

- **Unusually hot places**
  If left in very hot places such as under the sun or in a car with the windows closed in summer, warping to the body or breakdown may occur.
- **In direct sunlight or near heating equipment**
  Warping or breakdown may occur.
- **Places subject to strong vibrations**
- **Places subject to strong magnetism**
- **Sandy or dusty places**
  When using the camera at the seaside, beaches, or otherwise sandy places, take care to keep the camera free of sand particles. Breakdown which might not be able to be repaired may occur .
- **Don't keep the lens or viewfinder pointed toward the sun.**
  Direct sunlight can harm the internal components of the digital still camera. Take care when leaving the camera outside or in a window.

Operation

- **Don't use in places with strong electromagnetic or radial waves.**
  You won't be able to correctly record or play back.
- **Don't use near TV, AM radio or FM tuners.**
  TV, AM radio or FM tuners will interfere with digital recording.
- **Don't connect the AC power adaptor or battery charger to such devices as electric transformers.**
  Internal heating or breakdown may occur.

Maintenance

If dirty, wipe clean with a soft cloth.

Care of the camera body

- If the camera is very dirty, wipe with a soft coth moistened with a thin solution of neutral detergent. Wipe dry with a cloth.
- Do not use alcohol, thinner or benzine on the unit. Such solvents may remove paint from the cabinet.
- When using a chemically treated cloth, follow the manufacturer's instructions.
- If volatile liquids such as insecticide are left for a long time on the rubber or plastic parts, they may remove paint from the cabinet.

Lens care

Remove dust from the surface of the lens with a blower or soft brush. If the lens is very dirty, wipe with a lens cleaning tissue.

To Maintain the Efficiency of the Camera

Operating and Storage Places

To avoid possible breakdown, do not use or store the camera in the following places:

- Extremely hot or cold places (The operating temperature is 0°C to +40°C (32°F to 104°F))
- In direct sunlight for long periods or near heating equipment
- Humid or dusty places
- Where it is exposed to rain
- Places subject to strong vibrations
- Near sources of strong magnetism
- Near sources of powerful electromagnetic radiation, such as TV or radio transmitters

Heat Emission

Do not wrap the camera in cloth or other materials when operating the camera. Doing so will raise the internal temperature and may cause breakdown.

Transportation

When transporting the camera, pack it in the original carton and packing materials, or similar packaging, to protect it from strong shocks during transportation.

Care

- Use a blower brush to remove dirt or dust from the surface of the lens or viewfinder.
- Lightly wipe the outside surface of the camera with a dry, soft cloth to remove dirt. If the body is very dirty, wipe it with a cloth moistened with a small amount of neutral detergent. Wipe dry with a cloth.
- Volatile liquids such as alcohol, benzine, thinner, or insecticide will damage the surface finish.

continued on next page

Please Read This

Test Shooting

Before shooting, take a few test shots to make sure pictures are being taken normally.

No Compensation for Picture Content

If a picture is not recorded due to a problem with the digital still camera, the recording content cannot be compensated.

Copyright Laws

Pictures that you take with your digital still camera other than for personal enjoyment cannot be used without permission from the copyright owner in accordance with copyright laws. Be aware that even taking pictures of events like concerts, performances or exhibits for your personal enjoyment may be subject to the same copyright laws.

Power Adaptor

With this unit, use the battery charger BC-V615 (supplied). When connecting to a wall socket, the AC power adaptor/charger AC-V700 is necessary.
The battery pack can also be purchased separately.
To buy one, please check with your nearest Sony dealer.

Battery Pack

Use the InfoLITHIUM battery pack NP-F550 (supplied) or NP-F530. Other battery packs cannot be used. Be sure to charge the battery pack before using for the first time.

Memory Stick and PC Card

Insert Sony Memory Stick MSA-8A (8MB) or MSA-4A (4MB) (not supplied) into Memory Stick/PC Card Adaptor MSAC-PC1 for use with the digital still camera.

The following PC cards may be used in the digital still camera:

- PC cards that conform to PC card standard 6.1
- Flash memory card ATA Type II
- Those with power specifications of 5V or 3.3V/5V

3-volt products cannot be used in the camera. Using incompatible cards in the camera may lead to breakdown.

Camera Playback Data

- Picture data recorded by the camera may be played back on the camera
- Picture data that has been edited on a personal computer or processed may not be played back by the camera even if it is recorded by the camera.

Data Recorded on the PC Card

Picture data is recorded in the following formats:

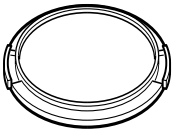
IMJP XXXX (folder name)/MVC XXXXX.jpg (file name)
(When the mode menu quality settings are High, Middle, and Low.)

IMTIXXXX (folder name)/MVCXXXXX.tif (file name)
(When the mode menu quality setting is Super.)

* Picture is only indicated as XXXX/XXXXX on the LCD monitor.

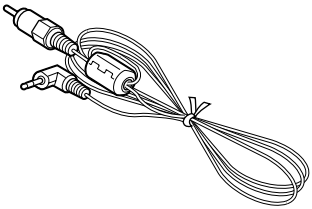
Checking the Supplied Accessories

Before using the camera, make sure you have the following supplied accessories.

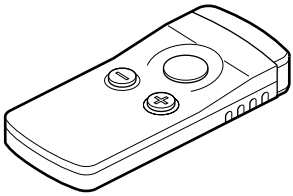


Lens cap (1, fitted on the camera)

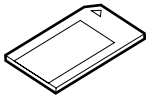
Viewfinder cap (1)



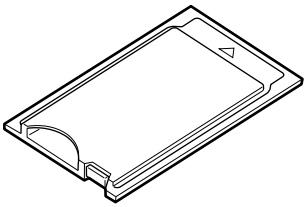
Video cable (1)



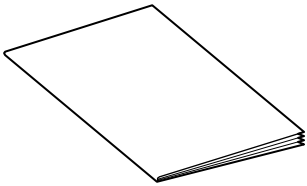
Wireless remote control (1)



Memory Stick (1)



Memory Stick/PC Card Adaptor (1)



User's manual (1)

Rechargeble battery pack	NP-F550 (1)
Battery charger	BC-V615 (1)
Neck strap belt	BLT-10(H) (1)
PC Card/Parallel port Adaptor	MSAC-PR1 (1)

Features

1/2 Inch 1,500,000 Pixel CCD

The digital still camera comes equipped with an all-pixel reading 1/2 inch CCD with 1,500,000 effective picture dots. The unit also uses a primary color filter and 1344 × 1024 pixel high-resolution to reproduce the natural colors and resolution of photographs.

5× Wide Zoom Lens

To make the most of the high-resolution CCD, the camera is equipped with a 5× wide zoom lens for focal distances of 28 mm to 140 mm (equivalent to 35 mm film cameras). Use together with 2× digital zoom to reach the maximum of 10× zoom.
*The resolution changes to 640 × 480 pixels when using digital zoom.

Two Finders: Viewfinder and Large LCD

The camera comes equipped with a viewfinder and a 2.5 inch low-temperature, polysilicon TFT color LCD with CRT contrast, resolution, and response speed.

Precision Speed Auto Focus

With the auto focus function, you can automatically focus on subjects. By pressing the shutter button halfway, you can lock the focus at a fixed position and change the composition before taking the picture.

Four Exposure Modes for Various Picture Taking Conditions

Light meter readings are first output from the CCD and then, depending on the picture taking conditions, one of four modes is chosen: Easy Program Exposure Mode for general picture-taking, Shutter Speed Priority Mode, Aperture Priority Mode and Manual Mode.

Two Frames/Second High Speed Picture Taking with Buffer Memory Loading

Equipped with a continuous picture taking mode, the camera can take 2 frames per second of high-speed picture taking in 640 × 480 size, low mode.

continued on next page

Taking Pictures for a Longer Period with the InfoLITHIUM Battery and Power Saving Option

Using the InfoLITHIUM battery, you can take about two hours of continuous picture taking (with the LCD monitor off.) Also, if the power is on and the camera is not operated for approximately one minute, power to the camera shuts off. If the camera is not operated for about 5 minutes, the whole unit shuts off (Auto Power Off function)

Loading to a Video Output Terminal

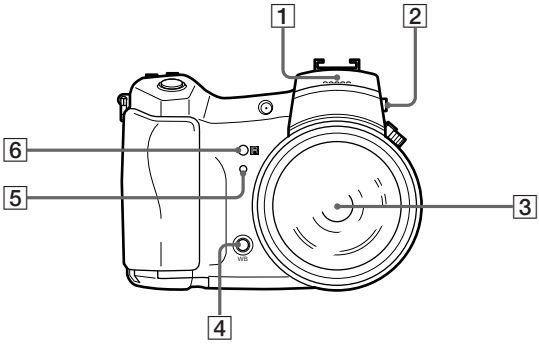
If the unit is connected to a television by the supplied video cable, pictures taken by the digital still camera can easily be played back on the television. This can be a particularly powerful display tool for presentations for meetings and such.

Using the PC Card and Memory Stick

The digital still camera uses the highly reliable PC card (PCMCIA ATA TYPE II) and long-lasting memory stick (for use when inserted in the Memory Stick/PC Card Adaptor) as the image recording medium.

Locations and Functions of Parts

Front



1 Flash

The camera has a built-in Guide Number GN10 flash. To use the flash, press the pop-up key. The cover will open and the flash warms up. The flash is stored when you close the cover.

2 Pop-up Key

Press the pop-up key to open the flash cover.

3 5× Zoom Lens

You can manually adjust the zoom lens (28 mm to 140 mm (5×) on a 35 mm film camera) by rotating the zoom ring. After adjusting the zoom, manually adjust the focus with the focus ring.

4 White Balance Button

When HOLD is set in the WB (white balance) mode, white balance can be adjusted by pressing this button.

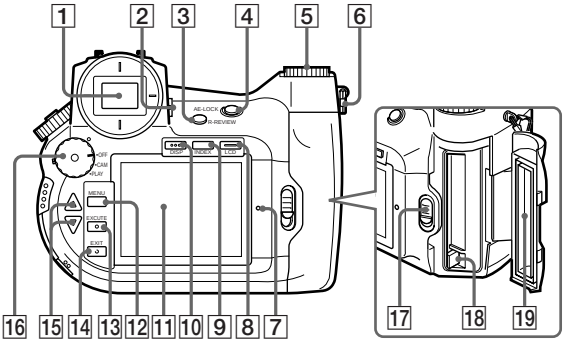
5 Self-Timer Lamp

When taking a picture with the self-timer, this lamp flashes when the release button is pressed. As the shutter release time draws near, the intervals between flashes become gradually shorter. The shutter is released when the light becomes constant.

6 Remote Control Signal Receiver

Receives infrared signals transmitted by the wireless remote control.

Rear



1 Viewfinder
Lets you frame the picture.

2 Eyesight Adjustment Lever
Adjusts the level of the viewfinder to suit the eyesight of the picture taker.

3 Review Button
Lets you view and play back pictures during the time set in the REVIEW TIME of the custom menu when pressed directly after taking a picture.

4 AE-LOCK Button
The exposure value is locked each time you press the AE lock button.
If the AE-LOCK button is pressed again or the release button is pressed, the lock function is cancelled the next time the camera is used.

5 Shift Dial
Sets the picture quality and size (when the camera is in CAM mode) and changes the pictures that are played back (when the camera is in PLAY mode).

6 Neck Strap Belt Holder
Where the neck strap belt is attached.

Caution

Don't rotate the metal fittings on the holder.

7 Access Lamp

Lights in red when a card is accessed by the camera during picture taking or playback.

Caution

When the access lamp is lit, do not eject the card or turn off the power source. The PC Card or Memory Stick may be damaged.

Note

The PC Card and the Memory Stick installed in the Memory Stick/PC Card Adaptor are both referred to here as CARD.

8 LCD Button

Switches the LCD monitor on and off.

9 INDEX Button

Switches playback to index when pressed while in PLAY mode.

10 DISP (display) Button

Turns LCD monitor information display on or off.

11 LCD Monitor

Lets you read necessary picture taking information, frame shots, and view recorded pictures.

12 MENU Button

Brings up the menu on the LCD monitor to change the settings of the camera or cards.

13 EXECUTE Button

Lets you choose items when adjusting settings in the menu.

14 EXIT Button

Returns you to the previous item or screen when changing settings in the menu.

15 UP▲/DOWN▼ Button

Selects menu items and changes values.

continued on next page

16 Power/Mode Dial

Selects camera conditions when turned while the mode lock (green) is held down.

• OFF

Turns the power off.

• CAM

Allows you to take pictures (CAM mode).

• PLAY

Allows you to play back the pictures you have taken (PLAY mode).

Note

LCD Monitor Display

When the power/mode dial is turned to CAM, the LCD monitor remains off. If necessary, press the LCD button to turn the LCD monitor on.

When the power/mode dial is turned to PLAY, the LCD monitor automatically turns on.

17 Card Cover Lock

Slide this lock to enable card insertion or ejection.

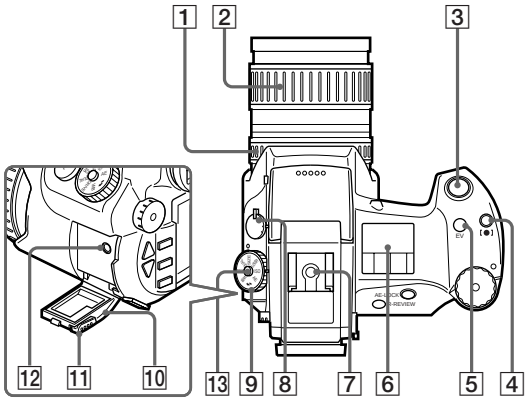
18 Card Eject Button

Press this button to eject cards.

19 Card Cover

Open or close this cover to set the card in place or to eject it.

Top



1 Focus Ring
Rotate left or right to adjust the focus.

2 Zoom Ring
Rotate left or right to adjust the zoom ratio of the zoom lens.

3 Release Button
Operates the shutter when shooting.

4 [●] (Spot Light Meter Reading Switch) Button
By turning the shift dial while pressing this button, you can choose from Spot (○ Spot light meter reading) or Average ([ ]: average light meter reading) to measure the light needed for proper exposure.

5 ± (EV) Button
By turning the shift dial while pressing this button, you can correct the exposure when taking pictures.

6 LCD Panel
Picture taking settings, such as shutter speed and aperture, are displayed on the LCD panel.

7 Hot Shoe
Attach external flashes here.

8 Focus Mode Switch
Switches from auto to manual when the camera is in auto focus mode.

continued on next page

9 Mode Dial

Pressing the shift button (top button) after it has been adjusted to the desired position sets the picture size and quality (in CAM mode) and changes the picture to be played back (in PLAY mode).

10 Connector Cover

To view pictures on a television, open this cover and connect the video cable (supplied) to the video output terminal.

11 Connector Cover Lock

Slide this lock to open the connector cover.

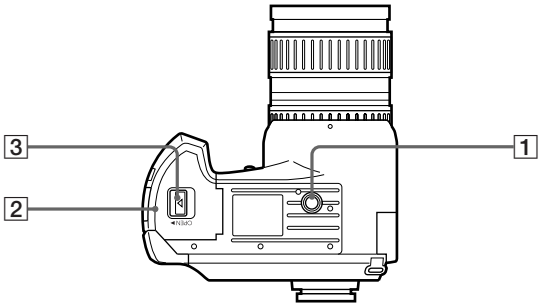
12 Video Output Terminal

To view pictures on the television, connect the video cable (supplied) here.

13 Shift Button

Pressing this button after moving the mode dial to its desired position sets the picture quality or picture size (in CAM mode) or changes the picture to be played back (in PLAY mode).

Bottom



1 Tripod Hole

Attach a tripod here. Standards are as listed below.
ISO Standard *l*=4.5mm +/- 0.2mm
ASA Standard *l*=0.197 inch

2 Battery Cover

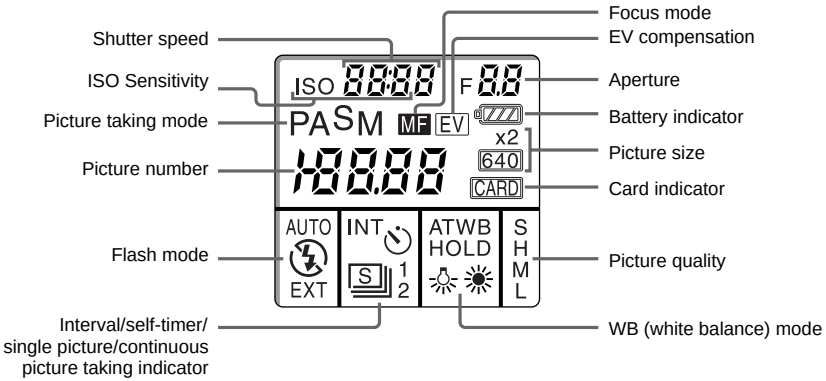
Open or close this cover to insert or take out the battery pack.

3 Battery Cover Lock

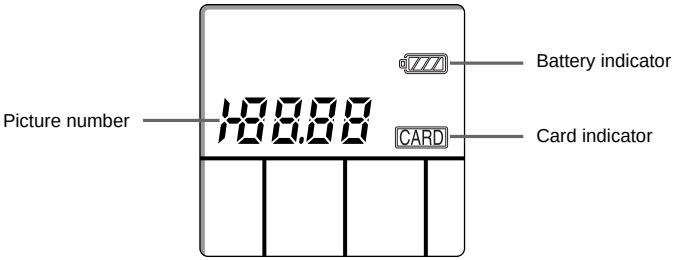
Slide this lock to insert or take out the battery pack.

LCD Panel

CAM Mode



PLAY Mode

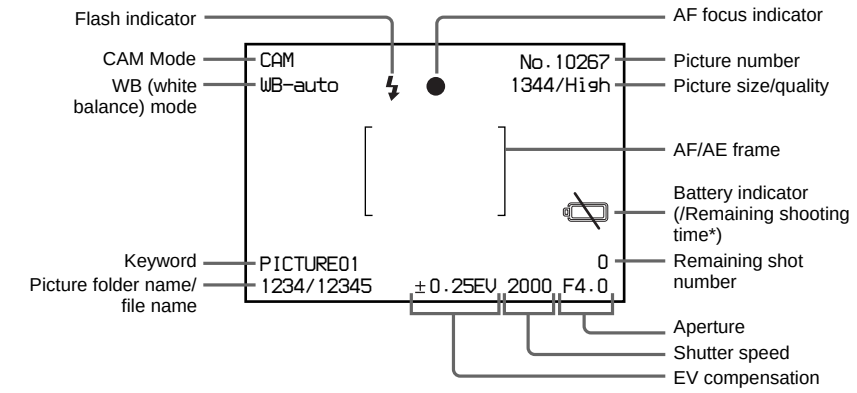


Note

In CAM mode, when the release button is pressed while pressing the shift button, the shutter speed indicator changes to the remaining shot number indicator and the aperture indicator changes to remaining shooting time.
Because the remaining shooting time is only displayed in two spaces, any time over 99 minutes is displayed as 99.
The viewfinder display is changed in the same way.

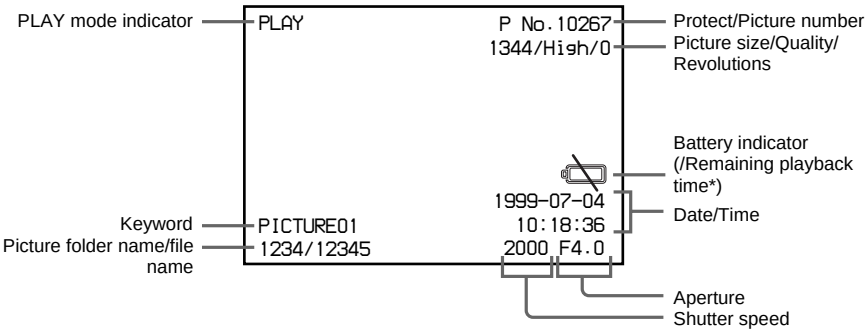
LCD Monitor

CAM mode



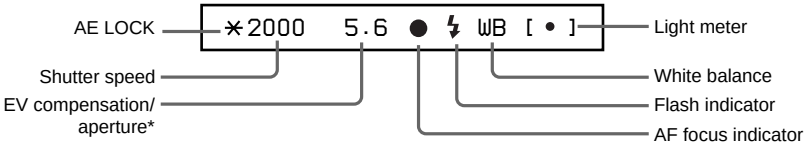
* Remaining shooting time is not displayed when using AC power adaptor/charger AC-V700. Usually the remaining shooting time is displayed. When the battery gets weak, the battery indicator flashes.

PLAY Mode



* Usually remaining playback time is displayed. When the battery gets weak, the battery indicator flashes.
The remaining playback time is not displayed when using AC power adaptor/charger AC-V700.

Viewfinder



* The EV compensation is displayed when EV Button is pressed.

Preparations

Charging the Battery Pack

Charge the battery pack with the battery charger BC-V615 (supplied).
Charge the battery pack before using the camera for the first time.
Charge the battery when necessary, as indicated by the remaining shooting time on the LCD monitor or the battery indicator on the LCD panel.

Battery Pack Charging Time

When it is time to charge the battery, the battery indicator on the LCD panel flashes. For further reference see “Warning Indicators” (page 109).

Battery Pack Charging Time

Battery Charger	Charging time for practical use*	Time for full charge
BC-V615	Approx. 180 minutes	Approx. 240 minutes
AC-V700	Approx. 55 minutes	Approx. 115 minutes

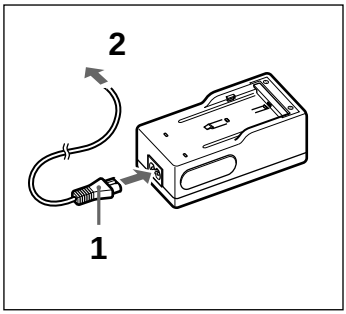
* The time needed for charging an empty NP-F550 battery pack.

Continuous Use with the Battery Pack

The usage time with a fully charged battery:

Battery Pack	Shooting time*		Playback time	
	LCD monitor off	LCD monitor on	LCD monitor off	LCD monitor on
NP-F550	Approx. 2.5 hours	Approx. 1.5 hours	Approx. 5 hours	Approx. 2.5 hours

* Times shown are standard values for continuous general photography at 20˚C (68˚F) with the flash off. The time is reduced by repeatedly turning the power on and off.



1 Connect the AC power cable to the battery charger.

2 Plug the AC plug of the AC power cable into a wall socket.

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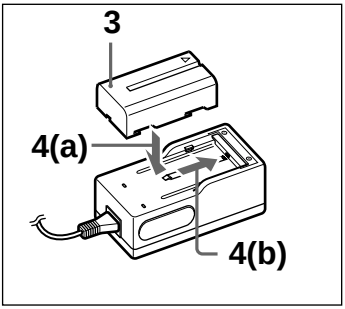


3 Making sure the ▲ mark is pointed in the right direction, place the battery pack in the hollow of the battery charger.

4 Pushing the battery pack down (a), slide it fully into the charger (b).

When charging starts, the charging lamp lights in amber. When charging is complete, the light goes out.

5 After charging has finished, remove the battery pack.

This camera can only use *InfoLITHIUM*™ batteries.

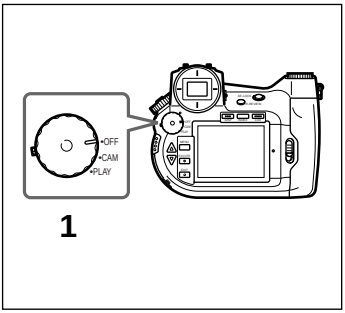
The InfoLITHIUM battery is a new type of lithium ion battery that transmits data on its condition to InfoLITHIUM-compatible equipment. The digital still camera supports the InfoLITHIUM battery.

The InfoLITHIUM battery is recognized by the *InfoLITHIUM* mark.

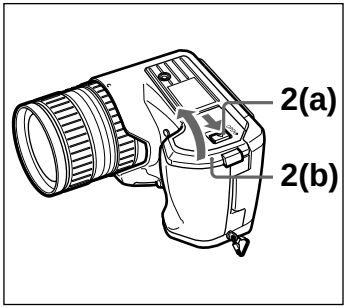
**InfoLITHIUM*™ is a trademark of the Sony Corporation.

Installation of the Battery Pack

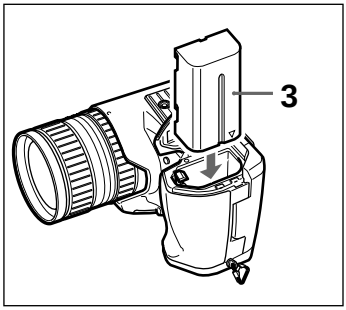
After charging the battery, install it in the camera.



1 Make sure the camera power/mode dial is set to the OFF position.



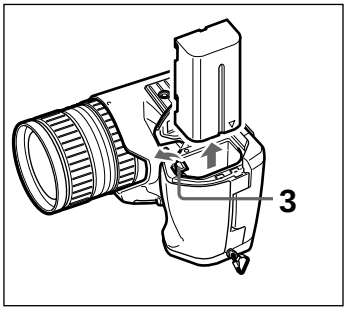
2 Slide the battery cover lock in the direction of the ▲ mark (a), and open the battery cover (b).



3 Insert the battery ▲ mark side first until it firmly locks in place.

4 Close the battery cover.

Removing the Battery



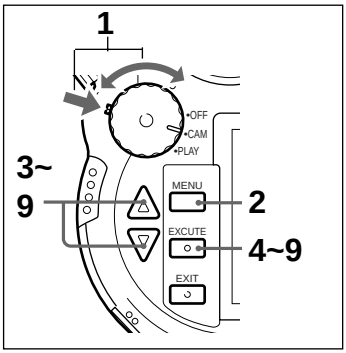
1 Make sure the camera power/mode dial is set to the OFF position.

2 Slide the battery cover lock in the direction of the ▲ mark and open the battery cover.

3 Rotate the battery cover lock to the outside and remove the battery pack.

Setting the Time and Date

The shooting time and date are recorded automatically with information from the camera's internal clock. Set the clock to ensure the correct time and date are recorded.



1 While pressing the mode lock (green), turn the power/mode dial to CAM mode.

2 Press the MENU button.

The LCD monitor turns on and the menu is displayed.

3 Press the ▲(UP)/▼(DOWN) buttons to select "Date & Time".

```
CAMERA MENU

    Custom
    PC Card INIT
    User File Save
    New Folder
    ID Set
    WB Flash
    Date & Time
    Display Set
```

4 Press the EXECUTE button.

The DATE & TIME menu is displayed.

5 Select "Set" using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

The year can now be set.

```
DATE & TIME


Set          1999-07-04 20:45:58
Date Form    yyyy-mm-dd
```

6 Set the year using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

The month can now be set.

7 Set the month, day, hour, minutes and seconds in the same way as explained in step 5.

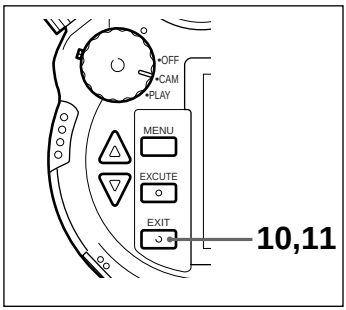
8 Select “Date Form” using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

You can now select the date display format.

9 Select the date display format using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

You can choose from the following 3 date display formats. [yyyy] indicates year, [mm] indicates month and [dd] indicates day.

yyyy-mm-dd (ex:1999-07-04)
dd-mm-yyyy (ex:04-07-1999)
mm-dd-yyyy (ex:07-04-1999)



10 Press the EXIT button.

The time and date are set and the menu returns on the LCD monitor.

11 Press the EXIT button.

The menu disappears from the monitor.

Keeping correct time

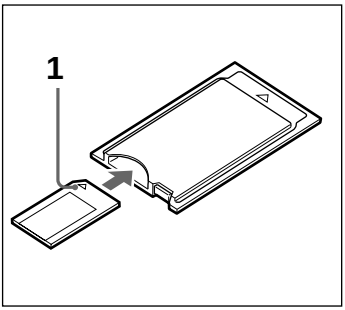
A separate lithium button battery is used by the camera to power the internal clock. When turning the power dial to CAM or PLAY from OFF, if the message “Date & Time not set” appears, it is time to charge the lithium button battery.

Inquire about charging the battery at the store where you bought the camera or at any Sony service center.

Preparing the Card

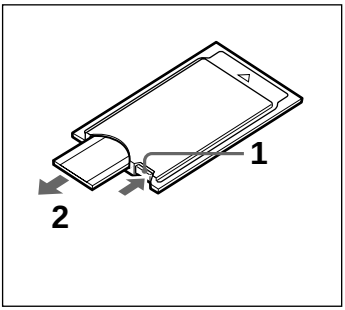
The picture is saved on the PC Card inserted in the camera (not supplied) or on the Memory Stick. Insert the Memory Stick in the Memory Stick/PC Card Adaptor and then insert the adaptor into the camera.
In this guide the Memory Stick, when inserted in the Memory Stick/PC Card Adaptor, and the PC Card are referred to as Card.

Inserting the Memory Stick in the Memory Stick/PC Card Adaptor



1 Making sure the side of the Memory Stick with the ▲ mark is facing up, insert it into the Memory Stick/PC Card Adaptor until it is locked firmly in place.

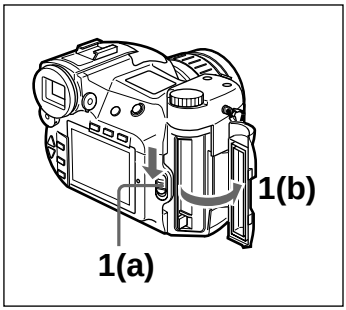
To Take out the Memory Stick from the Memory Stick/PC Card Adaptor



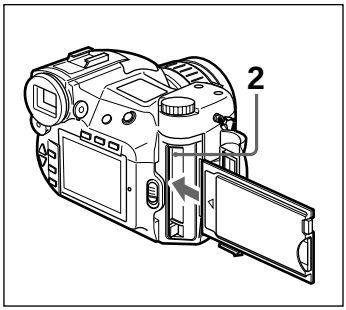
1 Push the EJECT button on the Memory Stick/PC Card Adaptor.

2 Pull out the Memory Stick.

Inserting the Card



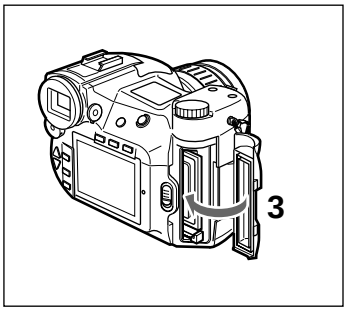
1 Slide the card cover bar lock downward (a) and open the card cover (b).



2 Insert the card in the camera.

Caution

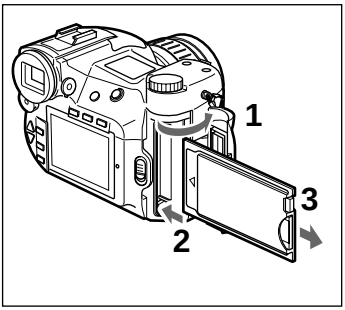
Make sure to insert the card in the proper direction. Forcing the card may result in damage to the camera and/or the card.
If you insert a card that has never been initialized, FORMAT ERROR flashes on the LCD monitor. Initialize the card. (Page 30)



3 Close the card cover.

continued on next page

To Remove the Card



1 Open the card cover.

2 Push the card eject button.

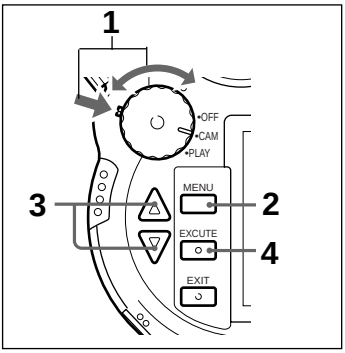
3 Pull out the card.

Initializing a Card

Uninitialized PC cards cannot be used in the camera. Before use, cards must first be initialized using the camera.

Caution

If you initialize a card that has data recorded on it, all recorded data, including protected picture data, will be erased.



1 While pressing the mode lock (green), turn the power/mode dial to CAM mode.

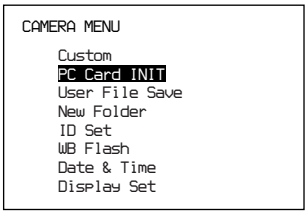
Note

Initializing PC cards is explained here with the power source/mode dial set to CAM mode, but the same operation can be performed in PLAY mode.

2 Press the MENU button.

The LCD monitor turns on and the menu is displayed.

3 Select “PC Card INIT” using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.



The message “Initialize OK?” appears.

4 Press the EXECUTE button.

Initialization begins.

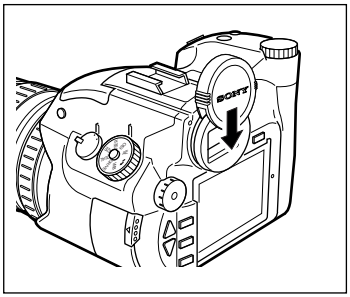
When initialization is complete, the LCD monitor returns to the normal display (as shown in step 1).

Caution

Do not take out the card during initialization. Initialization cannot proceed normally.

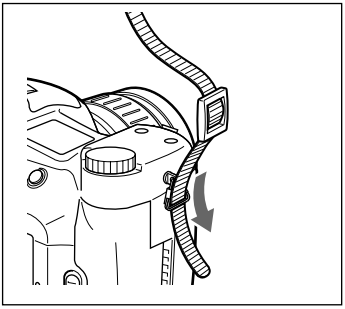
Attaching the Viewfinder Cap

Place the cap on the viewfinder when taking pictures with the LCD monitor under strong sunlight, such as outdoors. Keeping the cap on the viewfinder prevents strong rays of light from affecting the recorded pictures.

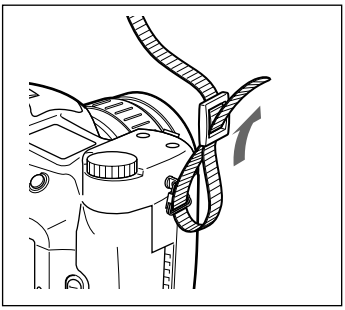


Attaching the Neck Strap Belt

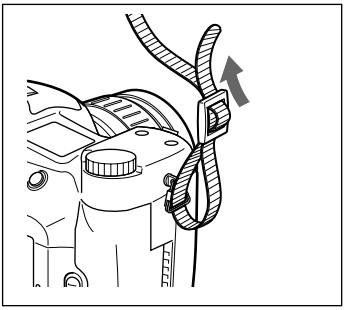
Attach the neck strap belt BLT-10(H) (supplied) to the camera for ease of carrying.

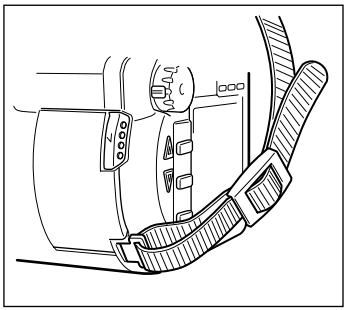


1 Pull the belt through the neck strap belt holder on the camera.



2 Pull the belt as shown in the diagram to adjust the length.





3 Attach the belt on the opposite side of the camera in the same way.

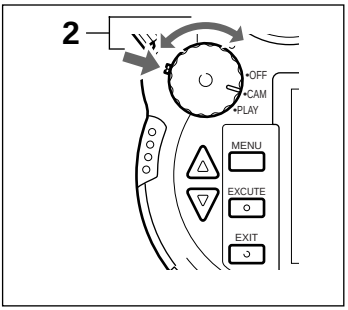
Putting the Camera in a Semi-Soft Case

Put the camera in semi-soft case LCM-D700 (not supplied) for convenience and ease of carrying.

Taking a Picture

Taking Pictures

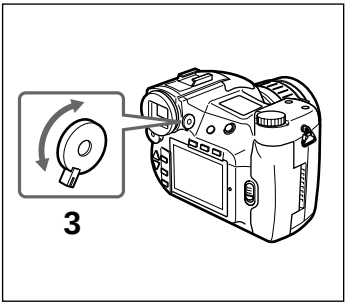
Taking pictures is easy with automatic focus.
In this manual, taking pictures while looking through the viewfinder is explained, but you can take pictures while looking through either the viewfinder or the LCD monitor.



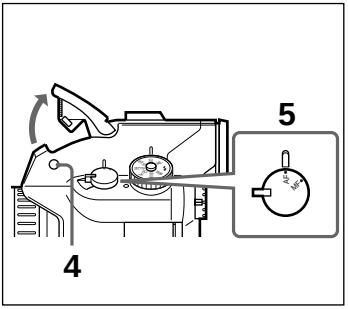
1 Take off the lens cap.

2 While pressing down the mode lock (green), turn the power/mode dial to CAM mode.

The indicators in the viewfinder turn on.



3 Turn the eyesight adjustment lever to where you can clearly see the circle in the center of the viewfinder.

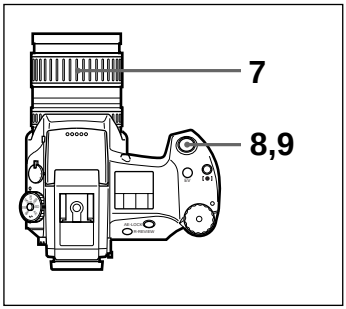


4 If there is insufficient light to shoot the subject (shutter speed or F-stop flashes), press the pop-up key to open the flash.

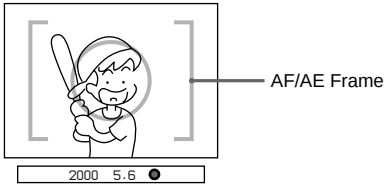
In conditions where it is necessary to use the flash, the flash indicator blinks, and flash preparation begins.

The flash indicator lights when the flash is ready for use.

5 Set the focus mode switch to AF.



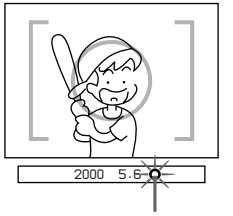
6 Center the subject on which you'd like to focus in the AF/AE frame.



7 Adjust the zoom by rotating the zoom ring left or right.

8 Press the release button halfway.

The AF LOCK indicator in the viewfinder flashes. When the subject is focused, the indicator stays lit.



9 Press the release button completely.

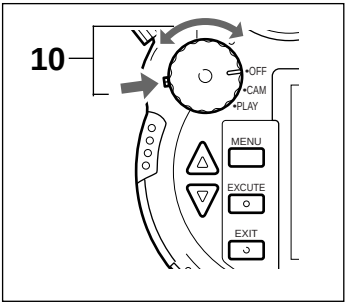
When the access lamp lights, the picture is being recorded on the card.

When the access lamp goes out, recording on the card is completed and the camera is ready to take the next picture.

Caution

When the access lamp is lit, do not remove the card or turn off the power. You may damage the PC Card or Memory Stick.

continued on next page



10 Turning the power/mode dial to OFF turns the power off.

Note

If you do not operate the camera for about one minute when the camera is on in the CAM mode, the LCD monitor automatically shuts off (Standby Mode).
Also, if the camera is not touched for approximately four minutes after that, the camera automatically shuts completely off.

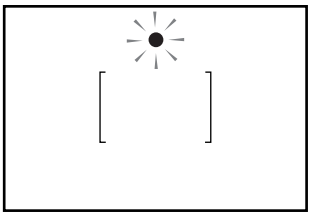
Auto Focus

This camera employs an auto focus mechanism. When auto focus is turned on, the camera automatically focuses on the picture subject. Auto focus is turned on by setting the focus mode switch to AF. Centering the AF frame on the subject and pressing the release button halfway focuses the picture frame.

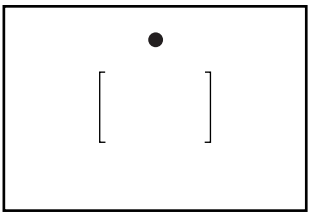
When the picture is in focus, the AF focusing mark in the LCD monitor and viewfinder changes as follows. Check the mark before making the exposure, and if the picture is not in focus, let go of the release button and press it halfway again to refocus.

• On the LCD monitor

When the release button is pressed halfway, the AF focusing mark flashes green.

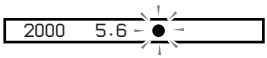


When the picture is focused, the indicator lights a steady green. If the picture cannot be focused, the indicator lights a steady red.

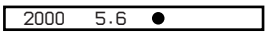


• In the viewfinder

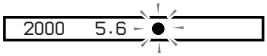
When the release button is pressed halfway, the AF focusing mark flashes.



When the picture is focused, the indicator lights steadily.

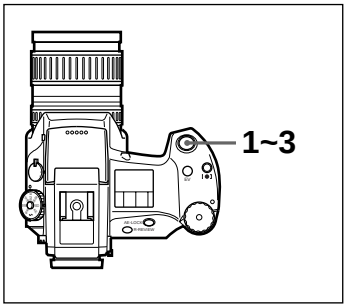


When the picture cannot be focused, the indicator continues flashing.



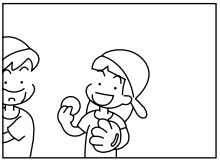
Locking the Focus

When you focus the picture by pressing the release button halfway, the focus is set at that distance until you release the button. This is called Focus Lock. If you want to take a picture of a subject on the edge of the picture composition, engaging Focus Lock allows you to move the camera and then take the picture.



1 Center the subject in the viewfinder and press the release button halfway.

The focus is fixed.



2 Move the camera to frame the composition you want.

3 Press the release button down completely.

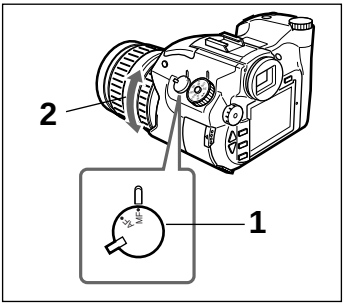
Note

AE-LOCK

When you press the release button halfway to set the focus, the exposure value is also set. This is indicated by the AE-LOCK indicator ✳ in the viewfinder and by highlighted display of the exposure value and shutter speed on the LCD monitor.
Also, if you frame a subject that you'd like to manually set the exposure for and press the AE-LOCK button, the exposure for that subject is fixed.
Use this function when it is necessary to change the picture composition after deciding the exposure. This is effective for picture taking under such conditions as where there is backlight.
To cancel AE-Lock, press the AE-LOCK button again, or press any other operation button.

Setting the Focus Manually

You can set the focus manually with this camera.
There are situations in which it is better to set the focus manually than use the auto focus function.



1 Set the auto focus mode switch to MF.

2 Adjust the focus by turning the focus ring left or right.

Notes

- The focus ring can be rotated completely in either direction.
- Set the focus after adjusting the zoom. If you set the appropriate zoom distance first, you can get a more accurate focus.

Situations in which auto focus may not work well

- When there is a very bright object near the subject;
- When the subject is near a highly reflected surface such as mirrors or polished metals;
- For subjects with non-reflective surfaces such as a black sweater;
- On subjects with small surface areas such as wire netting or lattices;
- On subjects with ephemeral shapes, such as smoke, flames or fireworks;
- On subjects with extremely low contrast;
- On subjects without vertical lines such as Venetian blinds;
- When the subject is moving fast.

Situations in which it is better to focus manually

- When the subject and its surroundings are both dark;
- When the subject offers little contrast on the screen, such as with walls or the sky;
- When the background is too bright or the contrast between the background and the subject is too great;
- When the subject has a fine, repeating pattern such as stripes;
- When the subject is behind a window that is dirty or wet;
- When there is a wire fence in front of the subject;
- When the subject is bright, emits or reflects light;
- When you want to take pictures of still subjects with a tripod.

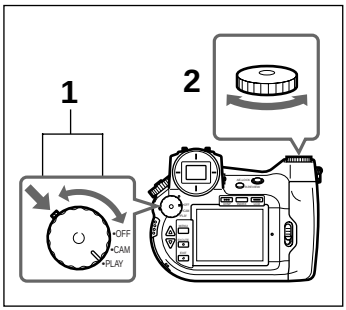
Viewing

Checking the Picture Content

Below are the different ways for playing back recorded pictures.

- **Viewing pictures in succession**
  Pictures are played back one by one in sequence.
- **Viewing pictures in an automatic cycle**
  Pictures are automatically played back in a cycle.
- **Viewing the picture index**
  Pictures are displayed all at once. This is a convenient way to search for a specific picture.

Viewing Pictures in Succession

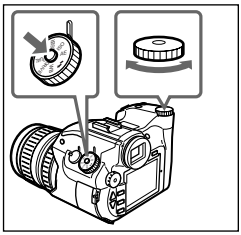


1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The access lamp lights and the camera reads the last picture taken.
When the access lamp goes out, reading is finished, and the picture is played back.

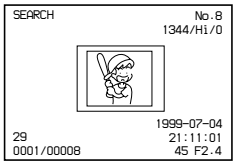
2 Rotate the shift dial to change the picture.

Turning the wheel right plays back the next picture; turning the wheel left plays back the previous picture.



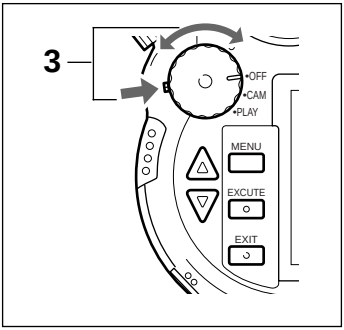
Note

While pressing down the shift button, turn the shift dial to choose which picture to play back. When you release the shift button, the picture you have chosen plays back immediately. (Picture Search).



In Picture Search, when you rotate the shift dial while holding down both the shift button and the release button, you can skip 50 pictures at a time.

continued on next page



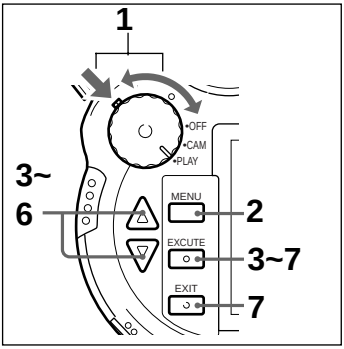
3 Turn the power/mode dial to OFF to turn off the power.

Note

If the camera is on but not operated for about three minutes, power to the LCD monitor shuts off (Standby Mode). Also, if the camera is not operated for approximately another two minutes, the camera shuts off completely. In Standby Mode you can return to the playback condition by touching any button, dial or switch on the camera. When the camera has shut itself completely off, you can return to the playback condition by pressing the release button.

Viewing Pictures in an Automatic Cycle

Pictures are automatically played back frame by frame.



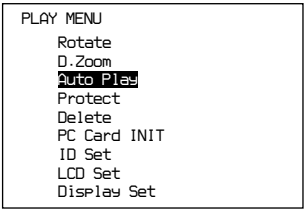
1 While pressing the mode lock (green), rotate the power/mode dial to PLAY.

The access lamp lights as the camera reads the last picture taken.
Reading is finished when the access lamp goes out. The picture is played back.

2 Press the MENU button.

The menu is displayed on the LCD monitor.

3 Select "Auto Play" using the ▲(UP)/▼(DOWN) buttons and then press EXECUTE.



The Auto Play menu is displayed.

4 Select “Interval Time” using the ▲(UP)/▼(DOWN) buttons and then press EXECUTE.

You can now set the number of seconds to display one picture.

5 Select the display interval time using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

Note

You can set the interval time between the range of 1 to 30 seconds (in 1 second units). However, depending on the playback quality and size, the set time might be overridden.

6 Select “Start” using the ▲(UP)/▼(DOWN) buttons and then press EXECUTE.

The pictures are automatically cycled for the period of time you set.
When all the recorded pictures have been played back, playback is repeated from the first picture.

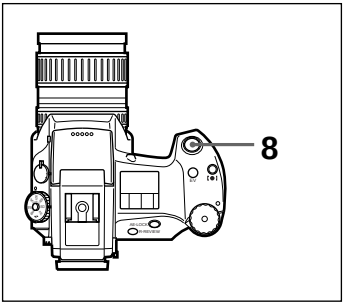
7 To pause playback, press the EXECUTE button.

Playback momentarily stops. To cancel the pause function, press the EXECUTE button again.

Note

When you press EXIT while in pause, playback stops in mid-sequence and the LCD monitor returns to the Auto Play menu.
To restart playback, press the EXECUTE button again.

continued on next page



8 To end automatic playback, press the release button halfway.

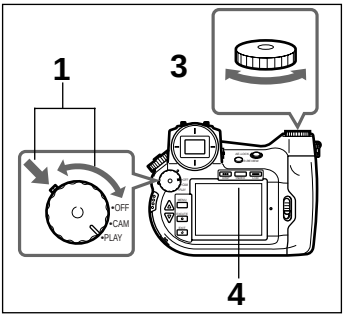
Automatic playback ends and the image appearing when you pressed the release button is displayed.

9 Turn the power/mode dial to OFF to turn the camera off.

Note

When the camera is set to automatic playback, the Auto Power Off function does not work.

Viewing the Picture Index



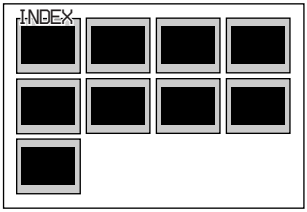
1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

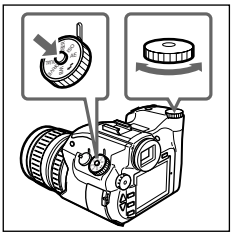
The access lamp lights and the camera reads the last recorded picture.

Reading is finished when the access lamp goes out, and the picture is played back.

2 Press the INDEX button.

The LCD monitor display switches to index view.





3 Rotate the shift dial to select a picture.

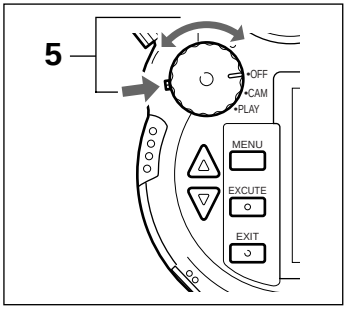
The color of the picture you have chosen changes and information about that picture, such as date and exposure, is displayed.

Note

In Index Mode, when you rotate the shift dial while holding down the shift button, you can jump ten frames to choose a picture.
When you rotate the shift dial while holding down the shift button and the release button simultaneously, you can jump 50 frames to choose a picture.

4 To close index view, press the INDEX button again.

The pictures that you selected are played back one at a time.



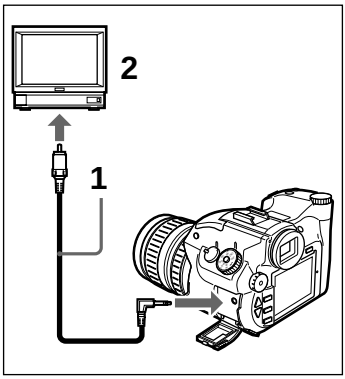
5 Turn the power/mode dial to OFF to turn the power off.

Note

If the camera is on but not operated for about three minutes, the LCD monitor shuts off (Standby Mode). Also, if the camera is not operated for approximately another two minutes, the camera shuts off completely. In Standby Mode you can return to the playback condition by touching any button, dial or switch on the camera. When the camera has shut itself completely off, you can return to the playback condition by pressing the release button.

Viewing Pictures on a Television

You can view pictures taken with the digital still camera on a television when it is connected to the TV's video terminal. This is convenient for adjusting the focus and viewing pictures in succession.



1 Use the video cable (supplied) to connect the camera video output terminal to the television video terminal.

Note

It is not possible to connect to a television that only has an antenna input terminal.

2 Set the television TV/video switch to VIDEO.

3 Play back the pictures through the camera.

Note

You can turn the LCD monitor display off by pressing the LCD button.

Using a PC Card Reader

When you connect a PC card reader on your computer and install the driver, the card is recognized as a drive. In this way, you can manage pictures saved on the card as computer files.
For further details on the PC card reader or driver, please refer to the PC card reader user's manual.
For further details about managing pictures on your computer, please see the user's manual for the picture processing application or the application's help function.

Using the PC Card/Parallel Port Adaptor

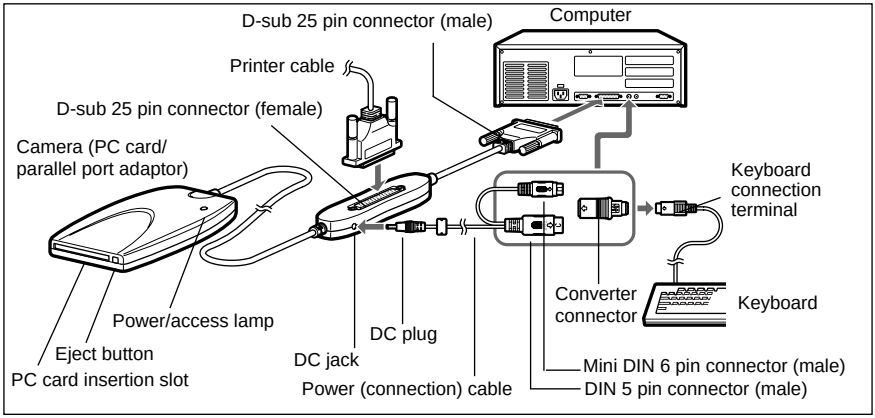
When you connect the MSAC-PR1 PC card/parallel port adaptor on your computer and install the MSAC-PR1 device driver, the card is recognized as a drive. In this way, you can manage pictures saved on the card as computer files.
The methods of connecting the PC card/parallel port adaptor to the computer and installing the PC card/parallel port adaptor driver are explained in this guide.
For further details about managing pictures on your computer, please see the user's manual for the picture processing application or the application's help function.

Connecting the PC Card/Parallel Port Adaptor

The PC card/parallel port adaptor connects to the parallel port connection terminal used by the computer keyboard.
Be sure the computer is turned off when you connect the adaptor.

Note

The PC card/parallel port adaptor uses energy supplied by the computer keyboard connection terminal. In some cases, insufficient energy is supplied by laptop computers. In such cases, use the PC card slot on your laptop computer.



- Of the 2 DIN terminals, connect to the one that serves as the computer keyboard connection terminal.
- Between the camera and the keyboard, adjust the size of the DIN connector of the keyboard and the power cable using a converter connector.
- There is no need to connect to the keyboard with laptop computers.
- If a printer will not be used, there is no need to connect the printer cable.

continued on next page

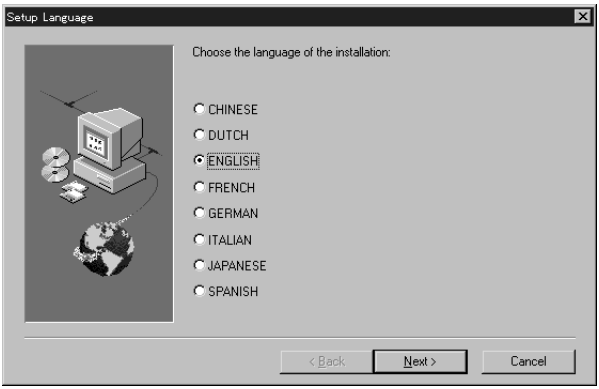
Installing the Driver

1 Insert the supplied CD-ROM into the CD-ROM drive.

The “Sony MSAC-PR1 Setup” dialog box appears.

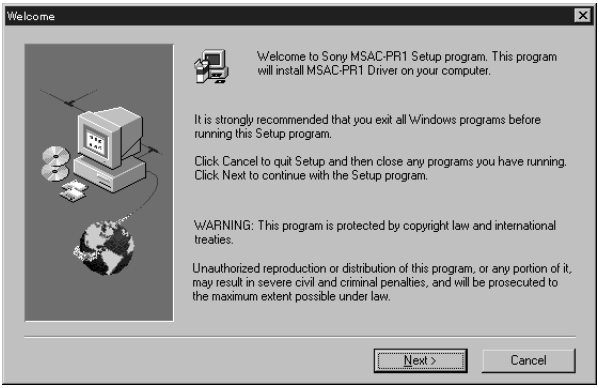
2 Click “Install Sony MSAC-PR1 Drivers”.

The “Setup Language” dialog box appears.



3 Select a language and click [Next].

The “Welcome” dialog box appears.

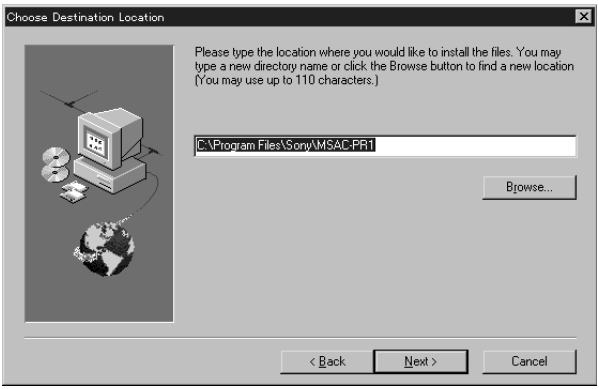

Welcome
Welcome to Sony MSAC-PR1 Setup program. This program will install MSAC-PR1 Driver on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next >
Cancel

4 Click [Next].

The “Software License Agreement” dialog box appears.

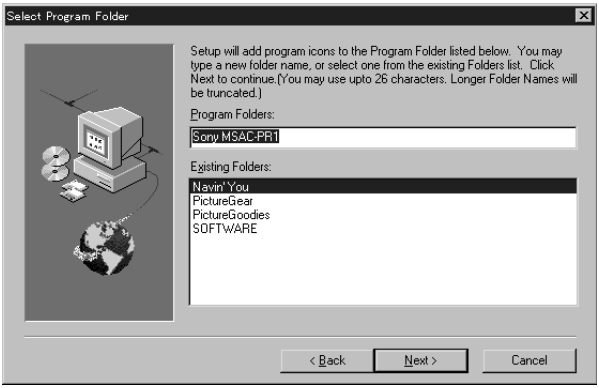
5 After reading and agreeing with the terms of the Software License Agreement, Click [Yes].

The “Choose Destination Location” dialog box appears.


Choose Destination Location
Please type the location where you would like to install the files. You may type a new directory name or click the Browse button to find a new location (You may use up to 110 characters.)
C:\Program Files\Sony\MSAC-PR1
Browse...
< Back
Next >
Cancel

6 Specify a destination folder for installation and click [Next].

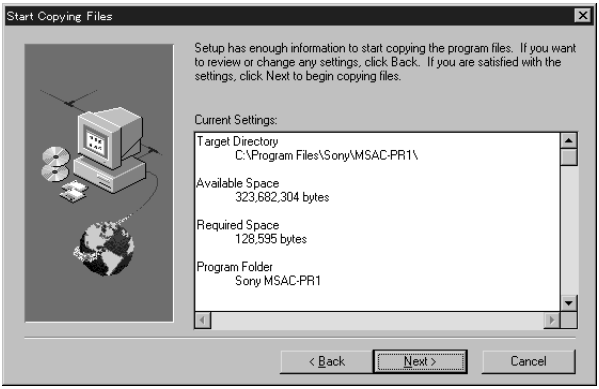
The “Select Program Folder” dialog box appears.


Select Program Folder
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing Folders list. Click Next to continue.(You may use upto 26 characters. Longer Folder Names will be truncated.)
Program Folders:
Sony MSAC-PR1
Existing Folders:
Navin'You
PictureGear
PictureGoodies
SOFTWARE
< Back
Next >
Cancel

continued on next page

7 Specify a program folder name and click [Next].

The “Start Copying Files” dialog box appears.

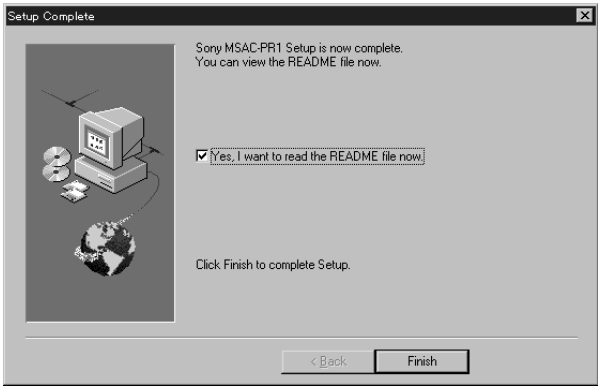

Start Copying Files
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Target Directory
C:\Program Files\Sony\MSAC-PR1\
Available Space
323,682,304 bytes
Required Space
128,595 bytes
Program Folder
Sony MSAC-PR1
< Back
Next >
Cancel

8 Confirm the displayed installation settings and click [Next].

Installation starts and the “Sony MSAC-PR1 Drive Identification” dialog box appears.

9 Confirm the drive name of the PC card/parallel port adaptor and click [OK].

The “Setup Complete” dialog box appears.


Setup Complete
Sony MSAC-PR1 Setup is now complete.
You can view the README file now.
Yes, I want to read the README file now.
Click Finish to complete Setup.
< Back
Finish

10 Click [Finish].

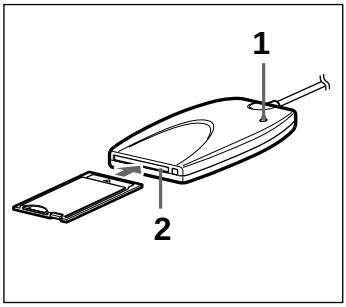
In step 9, if the “Yes, I want to read the README file now” box is checked, the README document is displayed. Installation is complete.

Inserting the Card

When you insert the card into the PC Card/Parallel port Adaptor, the drive that was specified as the drive name in step 8 of the "Install Driver" directions (page 48) is recognized. You can now manage the card contents on your computer.

Note

When using the Memory Stick, insert the Memory Stick into the Memory Stick/PC Card Adaptor.



1 Make sure the power/access lamp is not flashing.

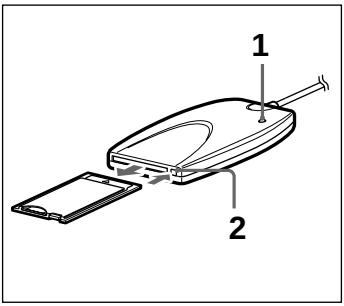
Caution

If you insert the card when the power/access lamp is flashing, you may damage the PC Card or Memory Stick.

2 Make sure the ▲ mark is facing up and slowly slide the card into the card insertion slot.

continued on next page

Taking Out the Card



1 Make sure the power/access lamp is not flashing.

Caution

Do not take out the card when the power/access lamp is flashing. Doing so may result in damage to your PC Card or Memory Stick.

2 Press the eject button and slowly pull out the card.

Uninstalling the Driver

If the MSAC-PR1 device driver is no longer necessary, you may remove it from your computer using the steps below.

1 Click [Start] in the task bar, and then open [Program] from the [Start] menu and click on [Sony MSAC-PR1]-[Uninstall].

The uninstall confirmation dialog box is displayed.

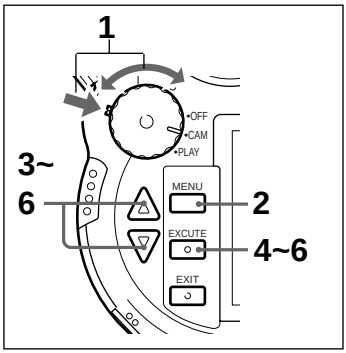
2 Click [Yes].

The uninstall program starts. The dialog box “Remove Programs From Your Computer” is displayed and file erasure begins.

3 When uninstallation is complete, click [OK].

Choosing the Shooting Mode

Choose the shooting mode from the choices Program AE (Program), Aperture Priority AE (Aperture), Shutter Speed Priority AE (Shutter) or Manual Exposure (Manual).



1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the LCD button to turn the LCD monitor ON.

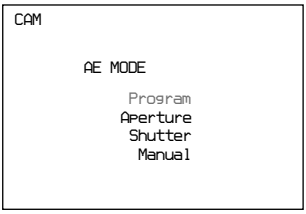
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to AE and press the shift button.

The shooting mode menu is displayed.

4 While pressing the shift button, rotate the shift dial to choose a shooting mode.



Program (Program AE)

In this mode, the aperture and shutter speed are both changed simultaneously according to the brightness of the subject. The correct exposure is automatically chosen.

Aperture (Aperture Priority AE)

When the aperture is fixed, the shutter speed is automatically changed according to the brightness of the subject to obtain the correct exposure.

continued on next page

Shutter (Shutter Speed Priority AE)

When the shutter speed is fixed, the aperture is automatically changed according to the brightness of the subject to obtain the correct exposure.

Manual (Manual Exposure)

You can decide the exposure by setting the shutter speed and aperture manually.

Note

Shooting modes are indicated on the LCD panel as P (Program AE), A (Aperture priority AE), S (Shutter Speed priority AE), and M (Manual Exposure).

5 Release the shift button.

When the shooting mode is set, exit the menu. The camera is ready to take pictures.

Note

After deciding the shooting mode, select the shutter speed and/or aperture as explained below.

Program AE

Turn the shift dial to choose a fixed shutter speed and aperture combination.

Aperture Priority AE

Turn the shift dial to the desired aperture.

Shutter Speed Priority AE

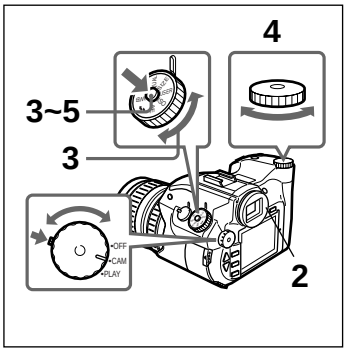
Turn the shift dial to the desired shutter speed.

Manual Exposure

Turn the shift dial to choose the shutter speed. While pressing the +/- button, turn the shift dial to choose the aperture.

Choosing Picture Size

Choose the picture size to be recorded during shooting from among the following: 1344 × 1024, 640 × 480, ×2D. Zoom. The larger the size, the fewer the number of pictures that can be recorded.



1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the LCD button to turn the LCD monitor ON.

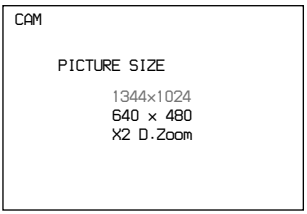
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to SIZE and press the shift button.

The PICTURE SIZE menu is displayed.

4 While pressing the shift button, rotate the shift dial to choose a picture size.



1344 x 1024

Records pictures in 1344 × 1024 pixel format.

640 x 480

Records pictures in 640 × 480 pixel format.

x2 D. Zoom

The mode for shooting pictures at 2× the virtual focal distance (about 56 to 280mm for 35mm film cameras). Pictures shot with ×2D. Zoom are recorded in 640 × 480 pixel format.

continued on next page

Because the picture frame narrows in this mode, check shots with the LCD monitor. You cannot check the true picture frame in the viewfinder.

Note

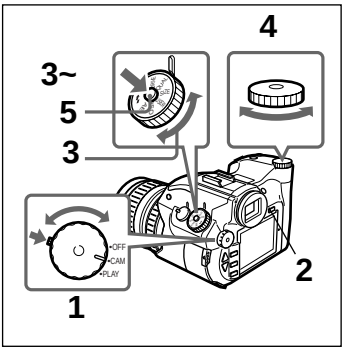
Picture size settings are indicated on the LCD panel as 1344 (1344 × 1024), 640 (640 × 480), and x2 640 (×2 D. Zoom).

5 Release the shift button.

When the picture size is set, exit the menu. The camera is ready to take pictures.

Choosing the Picture Quality Mode

Choose the picture quality of shots recorded during shooting. You can choose from Super, High, Middle and Low. The number of pictures you can take differs depending on the picture quality.



1 While pressing the mode lock (green)turn the power/mode dial to CAM.

2 Press the LCD button to turn on the LCD monitor.

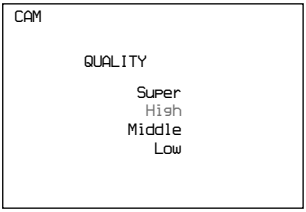
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to QLTY and press the shift button.

The QUALITY menu appears.

4 Rotate the shift dial while pressing the shift button. Choose a picture quality mode.



Picture Size	Super	High	Middle	Low
1344 × 1024	high compression	Approx.1/4	Approx.1/8	Approx.1/16
640 × 480 ×2D. Zoom	high compression	Approx.1/3	Approx.1/6	Approx.1/12
	TIFF RGB picture	JPEG Y-C compressed picture		

Super

Select this to get the highest quality picture.

High

Select this when you want to give your picture quality priority over the number of pictures.

Middle

Select this to shoot with average picture quality.

Low

Select this to give the number of pictures priority over the picture quality.

Note

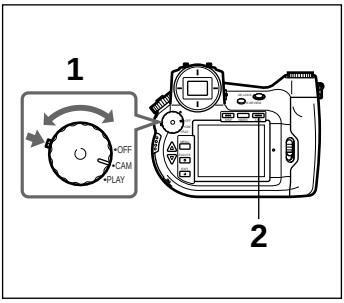
Picture quality is indicated on the LCD panel as S (Super), H (High), M (Middle), and L (Low).

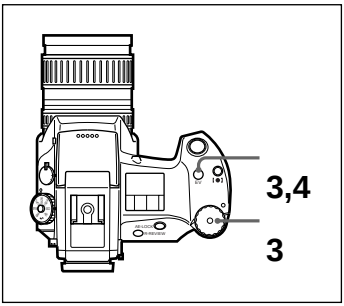
5 Release the shift button.

When the picture quality mode is set, exit the menu. The camera is ready to take pictures.

Choosing the Picture Taking Brightness (EV compensation)

When a shooting mode other than manual exposure (Manual) is chosen, you can adjust the brightness to fit the shooting conditions.





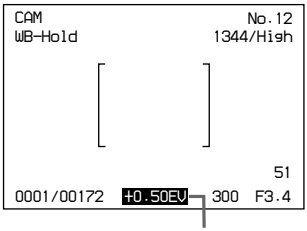
1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the LCD button to turn on the LCD monitor.

Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Rotate the shift dial while pressing the EV button to adjust the brightness.



Brightness correction (EV compensation)

You can tune within the range from -2.0 EV to +2.0 EV (in 0.25 EV units).

4 Release the EV button.

The brightness correction is set.

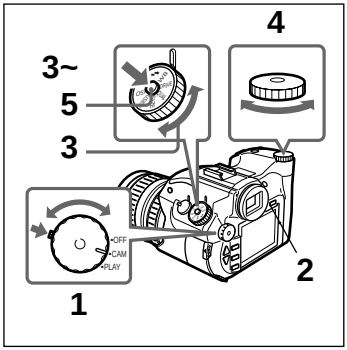
Adjusting for Natural Color Tone (White Balance Adjustment)

This camera comes equipped with the white balance function to give a more natural color tone to your pictures in a variety of shooting conditions.
Choose a white balance mode from Auto White Balance (Auto), White Balance Hold (Hold), Outdoor (Outdoor), and Indoor (Indoor). With White Balance Hold you can adjust the most appropriate white balance for the shooting condition.

Note

White balance is the balance of the level of white among the channels of R (red), G (green), and B (Blue) in a digital camera. If a picture is taken with this balance properly adjusted, reds or blues do not overwhelm the composition and a white subject is shot with appropriate level of white.

Choosing the White Balance Mode



1 While pressing the mode lock (green), turn the power mode/dial to CAM.

2 Press the LCD button to turn on the LCD monitor.

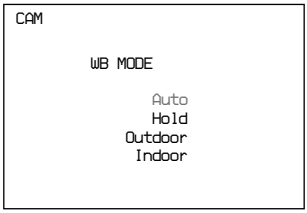
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to WB and press the shift button.

The WB MODE menu appears.

4 While pressing the shift button, rotate the shift dial to choose the white balance mode.



continued on next page

Auto (Auto White Balance)

This is the default. White balance is automatically adjusted to give a natural color tone according to the amount of light when shooting.

Hold (White Balance Hold)

Choose this when you want better color reproduction or you are shooting a monochrome subject and background. Press the WB button to adjust the white balance. For further information refer to the Adjusting the White Balance Hold section below.

Outdoor (Outdoor)

White balance is automatically adjusted to attain natural colors when shooting outdoors.

Indoor (Indoor)

White balance is automatically adjusted to attain natural colors when shooting indoors.

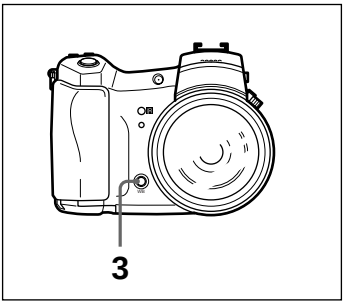
Note

White balance modes are indicated as ATW (Auto), WB/HOLD (Hold), [☀] (Outdoor), and [☼] (Indoor] on the LCD panel.

5 Release the shift button.

After the white balance mode is set, exit the menu. The camera is ready to take pictures.

Adjusting White Balance with White Balance Hold



1 Choose WHITE BALANCE HOLD as the white balance mode.

2 Point the camera at a completely white subject until it fills the viewfinder.

3 Push the WB button.

WB is indicated in the viewfinder and the white balance adjustment begins.

When the WB indicator disappears, white balance adjustment is complete.

The camera is ready to take pictures.

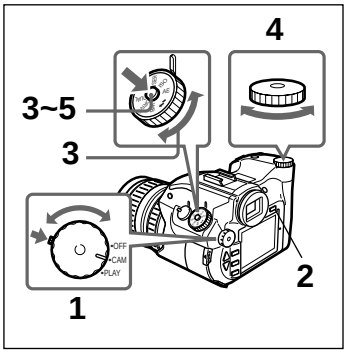
The white balance you have chosen is valid until you readjust it.

Note

When the WB indicator flashes, the white level was not successfully adjusted. Press any other operation button to leave this mode, then begin the white balance adjustment process again.

Changing the ISO Sensitivity

You can the get the same effect with this mode as is achieved by using films with different ISO sensitivities in film cameras. You can choose from ISO 100, 200 and 400.



1 While pressing the mode lock (green), turn the power/mode dial to CAM mode.

2 Push the LCD button to turn on the LCD monitor.

Note

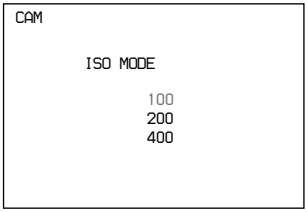
Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to ISO and then press the shift button.

The ISO MODE menu appears.

continued on next page

4 Rotate the shift dial while pressing the shift button. Choose an ISO sensitivity.



100

Sets photographic sensitivity equal to ISO 100.

200

Sets sensitivity equal to ISO 200.

400

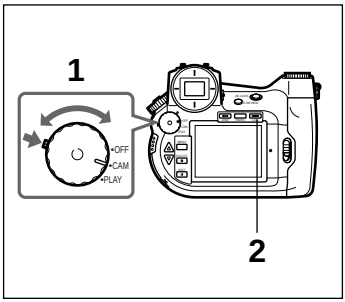
Sets sensitivity equal to ISO 400.

5 Release the shift button.

After the ISO sensitivity is set, exit the menu. The camera is ready to take pictures.

Choosing a Light Meter Reading Method

According to the picture taking conditions and purpose, you can choose the lighted area to be AVERAGE ([ ]) or SPOT ([○]) to measure light for the exposure.

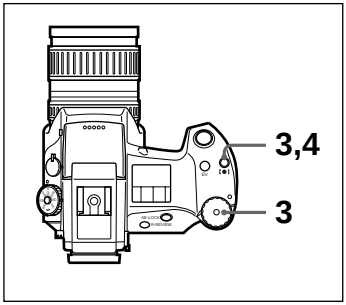


1 While pressing the mode lock (green), turn the power/mode dial to CAM.

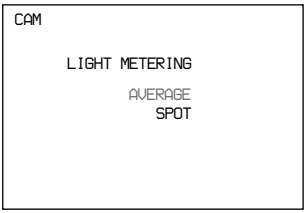
2 Press the LCD button to turn the LCD monitor on.

Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.



3 While pressing the [●] button (SPOT light meter switch button), turn the shift dial to choose the light meter reading method.



AVERAGE (light meter for average light at the center)

Appropriate for average picture taking conditions. Takes the average light meter reading of the whole screen after you have placed the focal point in the center of the viewfinder.

SPOT (Spot Light Meter)

Takes the light meter reading of a small range located in the central part of the viewfinder. This is effective for taking pictures of subjects surrounded by a lot of light, or that is backlit.

Note

Light meter options are indicated in the finderview as [ ] (AVERAGE) and [○] (SPOT).

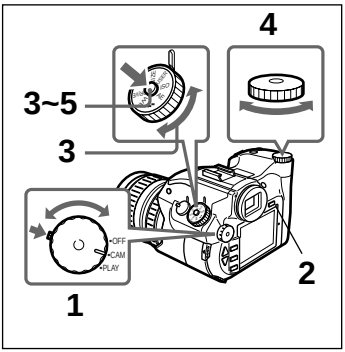
4 Release the [●] button.

After the light meter has been set, the camera is ready to take pictures.

Resetting the Content of the Settings

Resetting the modes returns the following settings to those set forth by the factory.

- mode dial settings
- Miscellaneous Settings (page 71)



1 While pressing the mode lock (green), turn the power/mode dial to CAM mode.

2 Press the LCD button to turn on the LCD monitor.

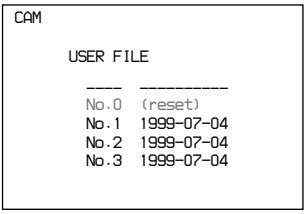
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to USER and then press the shift button.

The USER FILE menu appears.

4 While pressing the shift button, turn the shift dial to choose NO. 0 (reset).



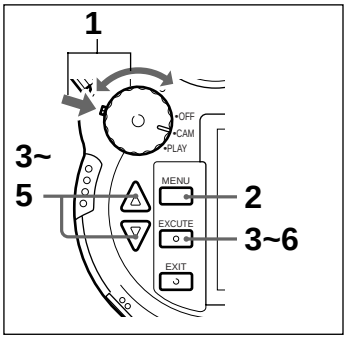
5 Release the shift button.

When the settings are reset, exit the menu. The camera is ready to take pictures.

Saving the Content of Settings

You can save the content of the following settings in up to 3 user files.

- mode dial settings
- the content of Miscellaneous Settings (page 71)

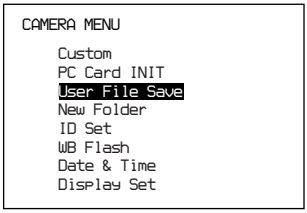


1 While pressing the mode lock (green), turn the power/mode dial to CAM mode.

2 Press the MENU button.

The LCD monitor turns on and the menu is displayed.

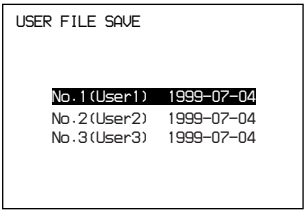
3 Choose “User File Save” using the ▲(UP)/▼(DOWN) buttons.



4 Press the EXECUTE button.

The USER FILE SAVE menu appears.

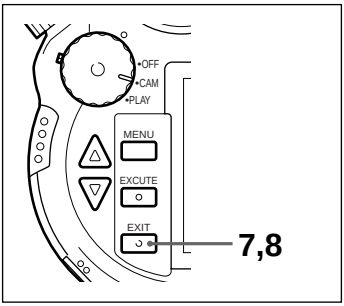
5 Using the ▲(UP)/▼(DOWN) buttons, choose a user file number from No. 1 to No. 3.



continued on next page

6 Press the EXECUTE button.

The setting content is saved as a user file with the chosen file number. The date and time the file is saved is also displayed.



7 Press the EXIT button.

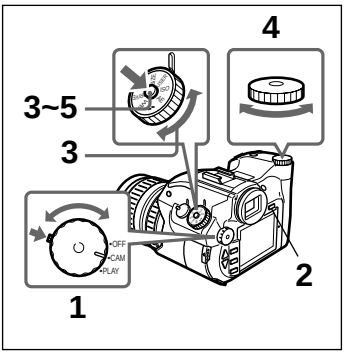
The LCD monitor display returns to the menu.

8 Press the EXIT button.

After exiting the menu, the camera is ready to take pictures.

Reading the Saved Settings

Reading the user file you have saved sets the same content in the user file.



1 While pressing the mode lock (green), turn the power/mode dial to CAM mode.

2 Press the LCD button to turn the LCD monitor on.

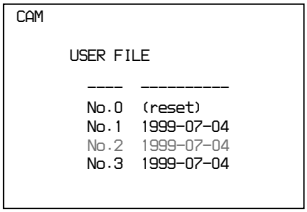
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to USER and press the shift button.

The USER FILE menu appears.

4 While pressing the shift button, turn the shift dial to choose a user file number from No. 1 to No. 3.

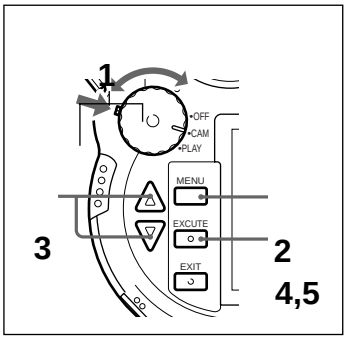


5 Release the shift button.

The content of the selected user file number is changed, and the camera is ready to take pictures.

Making a Folder to Save Pictures

When you make a folder on a card, picures are thereafter saved in that folder. In this way you can manage pictures as you take them.

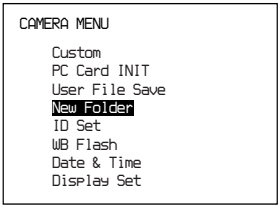


1 While pressing the mode lock (green), turn the power/mode dial to CAM mode.

2 Press the MENU button.

The LCD monitor turns on and the menu is displayed.

3 Choose “New Folder” using the ▲(UP)/▼(DOWN) buttons.



continued on next page

4 Press the EXECUTE button.

The message “Add No.xxxx Folder OK?” appears. [xxxx] is the automatically attached folder name.

5 Press the EXECUTE button.

The folder is created, and the camera is ready to take pictures.

Pictures are thereafter saved in that folder.

Note

You can create about 510 folders on a card.

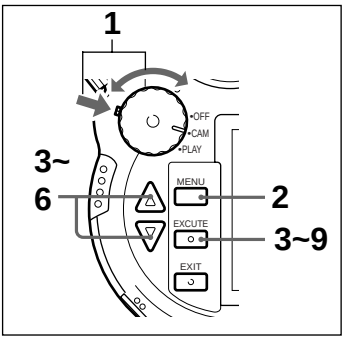
Attaching Keywords (ID Numbers) to Pictures

You can attach a keyword of up to 16 letters to a picture. The keyword is displayed when the picture is played back.
You can specify a keyword for a picture before taking it, or attach or change the keyword after the picture has been taken.

Note

You cannot attach a keyword to or change a keyword on a protected picture.

Specifying a Keyword Before Shooting

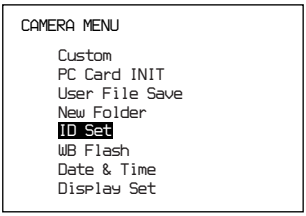


1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the MENU button.

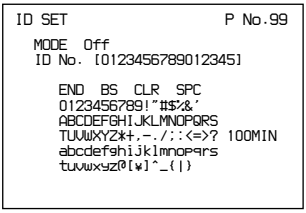
The LCD monitor turns on, and the menu is displayed.

3 Select “ID Set” using the ▲(UP)/▼(DOWN) buttons.



4 Press the EXECUTE button.

The keyword screen is displayed.



5 Select “Mode” using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

You can now change the mode setting.

6 Select “Off”, “Hold” or “Inc” using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

Off

Choose “Off” if you don't want to attach a keyword to a picture or to invalidate an existing keyword.

Hold

Choose “Hold” if you want to attach the same keyword to all pictures.

continued on next page

Inc

Choose “Inc” if you want the number of the picture to be automatically included at the end of keyword every time you take a picture.

(ex.) The keyword is PICTURE01

1st picture	: PICTURE01
2nd picture	: PICTURE02
	〉
9th picture	: PICTURE09
10th picture	: PICTURE10

Note

When the automatic counter reaches [99], the number returns to [00] the next time you take a picture.
The LCD monitor display returns to the keyword screen.

7 Choose “ID No.” using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

You can now input a keyword.

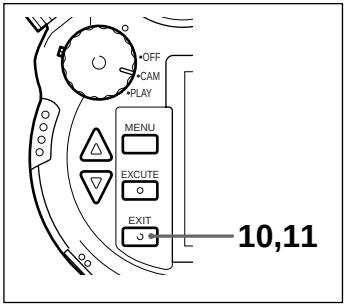
8 Choose a letter to enter using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

The letter you have chosen is input.

Repeat this step to enter the keyword. You can input up to 16 letters.

Note

Input begins from the 16th character space. If you want to input from a space in the middle, press the EXECUTE button until the cursor is automatically displayed in the correct place and then continue.



9 If you finish inputting the keyword before reaching the 16-letter limit, move the cursor to END and press the EXECUTE button.

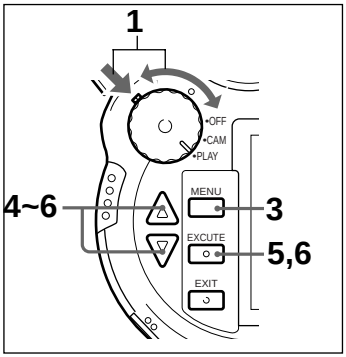
10 Press the EXIT button.

The display on the LCD monitor returns to the menu.

11 Press the EXIT button.

The menu disappears, and the camera is ready to take pictures.

Adding or Changing a Keyword to a Picture that has Already been Taken



1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

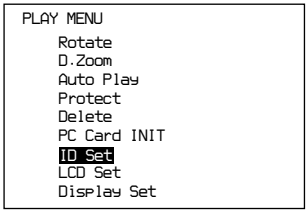
The LCD monitor tuns on.

2 Display the picture to which you want to add or change the keyword.

3 Press the MENU button.

The menu appears.

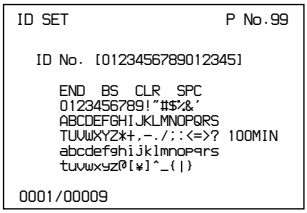
4 Select “ID Set” using the ▲(UP)/▼(DOWN) buttons.



continued on next page

5 Press the EXECUTE button.

The keyword input screen is displayed.
If a keyword has already been attached to the picture, that keyword is displayed.



6 Choose the letter you'd like to enter using the ▲(UP)/▼(DOWN) buttons. Press the EXECUTE button.

The letter you have chosen is input.
Repeat this set to enter the keyword. You can input up to 16 letters.

Note

If you want to enter the whole keyword again, set the cursor to CLR and press the EXECUTE button.

7 If you finish inputting the keyword before reaching the 16-letter limit, move the cursor to END and press the EXECUTE button.

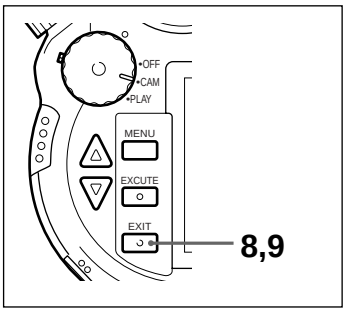
The keyword is attached and the LCD monitor returns to the menu display. Proceed to step 9.

8 Press the EXIT button.

The keyword is attached and the LCD monitor returns to the menu display.

9 Press the EXIT button.

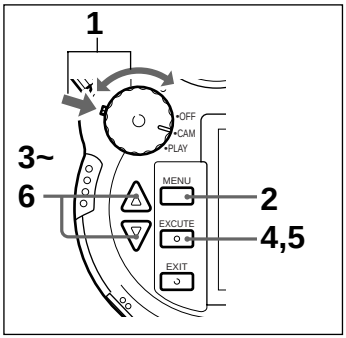
The menu disappears.



Miscellaneous Settings

The following settings are available with the digital still camera.

- Auto Power Off Function
- Interval Shooting (page 80)
- Review Function (page 82)
- Self-Timer
- Sharpness



1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the MENU button.

The LCD monitor turns on and the menu is displayed.

3 Choose “Custom” using the ▲(UP)/▼(DOWN) buttons.

```
CAMERA MENU

  Custom
  PC Card INIT
  User File Save
  New Folder
  ID Set
  WB Flash
  Date & Time
  Display Set
```

4 Press the EXECUTE button.

The CUSTOM menu is displayed.

```
CUSTOM

Power Save              on
Interval Rec Time       01:00:00
Review                  off
Review Time              5 sec
Self-Timer              10 sec
Sharpness       Soft/Normal/Hard
```


continued on next page

5 Choose the item you would like to set using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

You can set the item you selected.

Power Save (Auto Power Off Function)

- When set to ON, power to the LCD monitor is automatically turned off after approximately 1 minute (in CAM mode; approximately 3 minutes in PLAY mode) if the camera is not operated during that time, and power to the entire camera is turned off after approximately 4 more minutes (in CAM mode; approximately 2 more minutes in PLAY mode).
- When set to OFF, the power will not turn off over the passage of time.

Interval Rec Time (Interval Shooting)

The interval in this function can be set within the range of 1 second to 99 hours, 59 minutes, 59 seconds (in one-second units).

Depending on the picture size and quality mode during shooting, the set interval may not be kept.

Review (Automatic Review Function)

Sets the method of picture display directly after shooting.

- When set to ON, pictures are automatically displayed at the time of shooting. The display time is set in the REVIEW TIME setting.
- When set to OFF, the last picture is displayed when you press the REVIEW button.

Review Time

When Review is on or when the REVIEW button is pressed, the picture display time can be set for an interval within the range of 1 to 10 seconds (in one-second units).

Self-Timer

Sets the interval from when you press the RELEASE button to the time the shutter clicks within a range of 1 to 30 seconds (in one-second units).

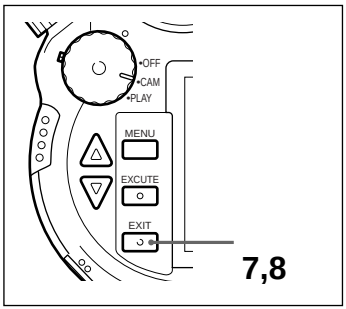
Sharpness

Sets the sharpness of the outline of the recorded picture.

- When set to SOFT, the picture outline is gently blurred.
- When set to NORMAL, the picture is standard.
- When set to HARD, the picture edges are clearly outlined.

6 Set the value using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

The LCD monitor display returns to the custom menu. If you want to continue, you can set another item at this time.



7 Press the EXIT button.

The LCD monitor display returns to menu.

8 Press the EXIT button.

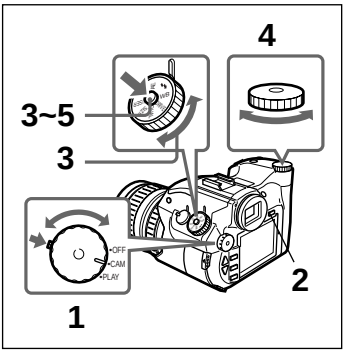
The menu disappears and the camera is ready to take pictures.

Shooting with the Flash

Use the flash when taking pictures in dark places, such as indoors.
A flash is built-in in the unit.
Depending on shooting conditions, choose a flash mode from among Auto, On, Off, and External.
When shooting in the External mode, attach an external flash to the hot shoe to take flash pictures.

Flash Mode Usage Guide

Shooting Condition	Setting
Normal	Auto
The subject is lit from behind. You want to use a flash during daytime.	On
When you want to capture the natural lighting of candle-lit scenes, sunsets, etc. When you don't want the flash to go off accidentally.	Off



Setting the Flash Mode

1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the LCD button to turn the LCD monitor on.

Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

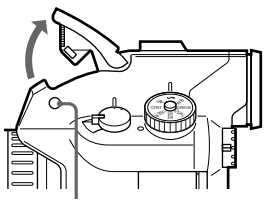
3 Turn the mode dial to ϟ and press the shift button.

This is the default mode.

Note Concerning Use of the Built-in Flash

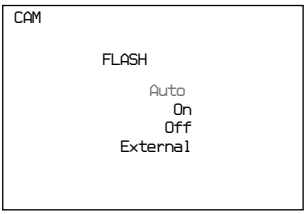
When photos are taken using the built-in flash, occlusion of light from the flash can occur under the following circumstances, resulting in a shadow at the bottom of the recorded image. If this occurs, change the zoom setting or use the optional external flash unit, as appropriate.

- When shots are taken at the wide-angle setting (f = 5.2 mm)
- When shots are taken at the telephoto setting (f = 26 mm) of a subject range of less than 1 meter
- When a lens hood or lens protection filter is attached to the lens



Pop-up key

4 While pressing the shift button, turn the shift dial to select a flash mode.



Auto

In conditions of insufficient light, the flash automatically goes off. This is the default mode.

On

Choose this mode when you want the flash to go off, for situations such as taking a picture of a subject that is backlit.

Off

Choose this mode when you want to take a picture with natural lighting or you don't want a strobe effect in your picture.

External

Choose this mode when you want to take a picture of a subject far from the camera and the light from the built-in flash is insufficient.

In such a case, attach an external flash to take pictures.

Note

Flash modes are indicated on the LCD panel as AUTO (Auto), (On), (Off), and EXT (External).

5 Press the shift button.

The flash mode is set and the menu disappears.

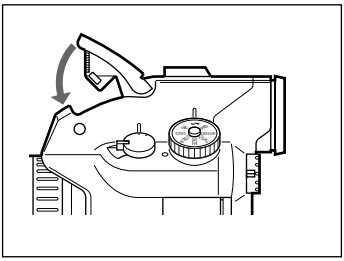
Unless the shooting mode is set to manual exposure, the shutter speed indicator or the aperture indicator flashes when it is necessary to use the flash. When this happens, press the Pop-up key to open the built-in flash, or attach an external flash to the hot shoe.

continued on next page

If the flash mode is set to Auto or On, when the flash indicator flashes, the flash is warming up.

When the flash lamp light becomes constant, the flash is ready for use.

Flashing → Continuously lit

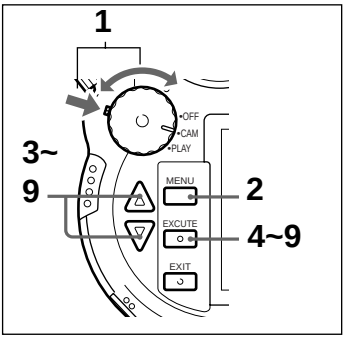


Note

When using the built-in flash, press the pop-up key to open it.
When finished with the flash, push the top of the flash down to close.

Adjusting White Balance when Taking Pictures with the Flash

You can adjust the white balance when using the flash.

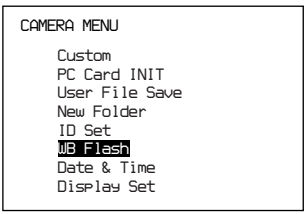


1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the MENU button.

The LCD monitor turns on and the menu is displayed.

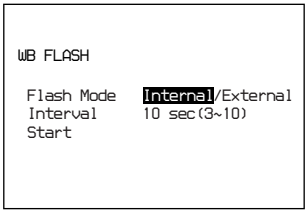
3 Select “WB Flash” using the ▲(UP)/▼(DOWN) buttons.



4 Press the EXECUTE button.

The WB FLASH menu is displayed.

5 Select “Flash Mode” using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.



You can now set the flash mode.

6 Choose “Internal” (built-in flash) or “External” (external flash) using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

Choose “Internal” to use the built-in flash or “External” to use the external flash and press the EXECUTE button.

7 If you chose “External” in step 6, select “Interval” using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

You can choose the interval during which to have the flash light.
Set an interval within the range of 3 to 10 seconds (in one-second units) using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

Note

When using an external flash, set the amount of light for the flash before adjusting the white balance to avoid extreme brightness or darkness in your pictures.

8 Point the camera toward a completely white subject until it completely fills the viewfinder.

continued on next page

9 Select “Start” using the ▲(UP)/▼(DOWN) buttons and then press EXECUTE.

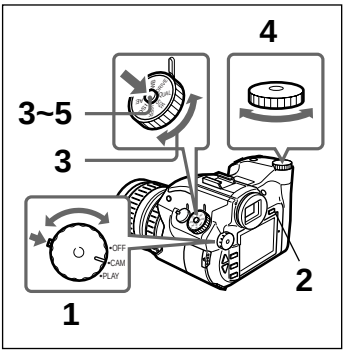
“WB” is displayed in the viewfinder and white balance adjustment begins.
After the flash lights about 10 times, the WB indicator goes off. The white balance adjustment is complete.
The white balance value is valid until it is adjusted again.

Note

When the WB indicator flashes, the white balance is not successfully being adjusted. Exit this mode by pressing any operation button besides the WB button and readjust the white balance again.

Continuous Shooting

In this mode you can continuously shoot pictures until you reach the maximum number by keeping the release button pressed.



1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Turn the LCD monitor on by pressing the LCD button.

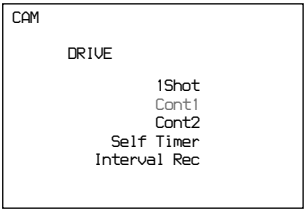
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to DRIVE and press the shift button.

The DRIVE menu appears.

4 While pressing the shift button, turn the shift dial to select “Cont1” or “Cont2.”



Cont1

In this mode, when the shooting mode is set to a mode other than manual exposure, the exposure is automatically adjusted every time a picture is taken.

Cont2

In this mode, the settings of the first picture are kept as pictures are taken in succession.
The continuous picture taking speed is faster in this mode than that in Cont1.

Note

These modes are indicated on the LCD panel as 1 (Cont1) and 2 (Cont2).

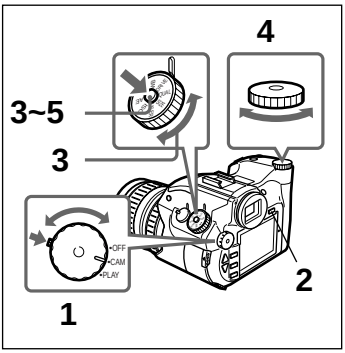
5 Release the shift button.

The continuous shooting mode is set, and the menu disappears. When taking pictures, keeping the release button pressed activates continuous shooting.
Auto focus will not work during continuous shooting. Set the focus before you start continuous shooting.

continued on next page

Taking a Picture at Regular Intervals (Interval Shooting)

In this mode, after pressing the release button, pictures are continuously taken at regular intervals. How to set the shooting interval is described in the Miscellaneous Settings section (page 71).



1 While pressing the mode lock (green), turn the power/mode lock to CAM.

2 Press the LCD button to turn the LCD monitor on.

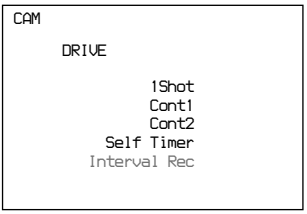
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to DRIVE and press the shift button.

The DRIVE menu appears.

4 While pressing the shift button, turn the shift dial to select “Interval Rec.”



Note

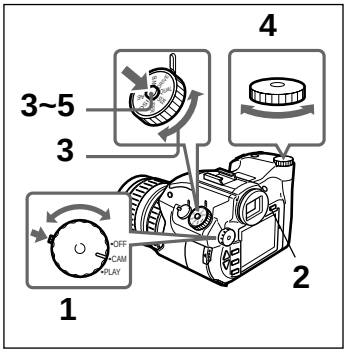
This option is indicated on the LCD panel as INT.

5 Release the shift button.

The interval time is set, and the menu disappears. When you press the release button, interval shooting starts.
To stop interval shooting, set another shooting method besides interval shooting or set the power/mode dial to OFF or PLAY.

Taking a Picture with the Self-Timer

In this mode, after pressing the release button, the shutter automatically clicks after a set period of time.
How to set the time between the pressing of the release button and the shutter release is described in the Miscellaneous Settings section (page 71).



1 While pressing the mode lock (green), turn the power/mode dial to CAM.

2 Press the LCD button to turn the LCD monitor on.

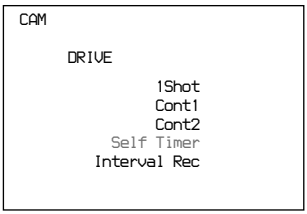
Note

Settings can also be confirmed on the LCD panel. When checking the settings on the LCD panel, this step is not necessary.

3 Turn the mode dial to DRIVE and press the shift button.

The DRIVE menu appears.

4 While pressing the shift button, turn the shift dial to select “Self Timer.”



5 Release the shift button.

The self-timer is set and the menu disappears. When you press the release button completely, the self-timer starts.

Note

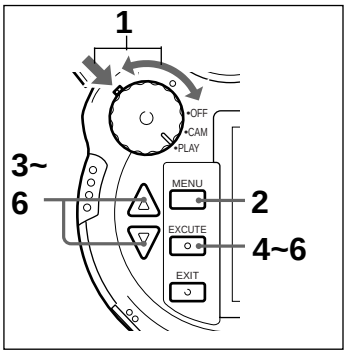
When taking photographs in the auto focus mode, press the release button halfway to focus, then press it all the way to take the shot.

Checking Pictures Directly After Shooting (Review Function)

When the REVIEW button is pressed directly after taking a picture, the picture is displayed on the LCD monitor in this mode.
When you turn the review function on in Miscellaneous Settings, pictures are displayed automatically, without having to press the REVIEW button.

Rotating the Picture

You can rotate the picture 90° clockwise or counter-clockwise, or 180° during playback.



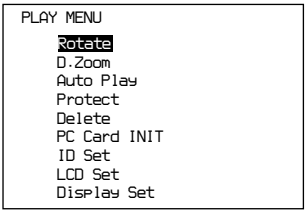
1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The LCD monitor turns on.

2 Push the MENU button.

The menu is displayed on the LCD monitor.

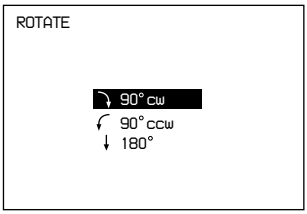
3 Choose “Rotate” using the ▲(UP)/▼(DOWN) buttons.



4 Press the EXECUTE button.

The ROTATE menu is displayed.

5 Choose an angle of rotation using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.



90° cw (rotation of 90° to the right)

Rotates the picture 90° clockwise.

90° ccw (rotation of 90° to the left)

Rotates the picture 90° counter-clockwise.

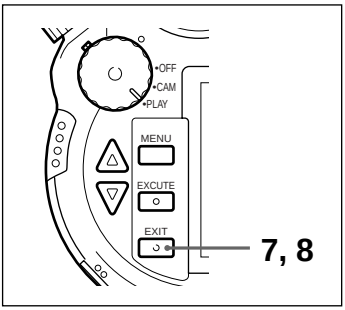
180° (rotation of 180°)

Rotates the picture 180°.

continued on next page

The picture is displayed at the angle of rotation chosen.

6 Rotate the picture as described in step 5 as often as necessary.



7 Press the EXIT button.

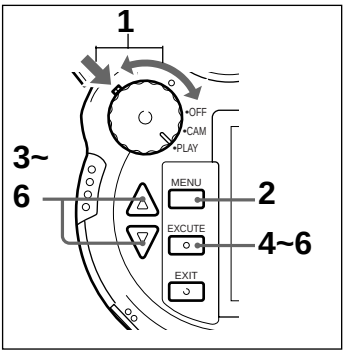
The LCD monitor returns to the menu display. Note, however, that infomation of rotation changes made to protected pictures is not saved.

8 Press the EXIT button.

The menu disappears.

Viewing an Enlarged Picture

You can view an enlarged detail of a picture during playback.



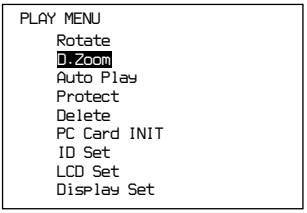
1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The LCD monitor turns on.

2 Press the MENU button.

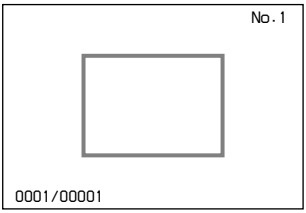
The menu is displayed on the LCD monitor.

3 Select “D. Zoom” using the ▲(UP)/▼(DOWN) buttons.



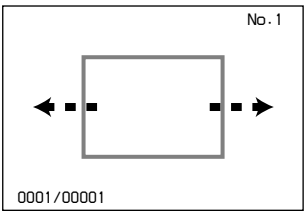
4 Press the EXECUTE button.

The area of the picture to be enlarged is framed with a green line.



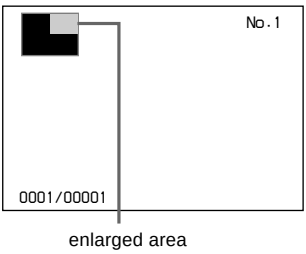
5 Select the area to be enlarged using the ▲(UP)/▼(DOWN) buttons.

The frame moves left when the ▲(UP) button is pressed.
The frame moves right when the ▼(DOWN) button is pushed.



6 Press the EXECUTE button.

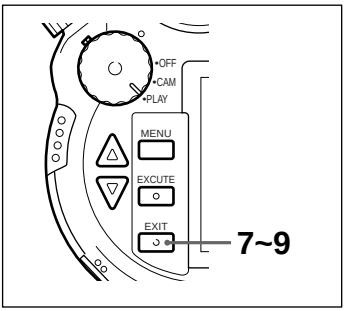
The selected area is enlarged and displayed, and the position of the enlarged area is displayed in the upper left corner.



continued on next page

Note

While viewing this screen, you can change the area to be enlarged by pressing the ▲(UP)/▼(DOWN) buttons.



7 Press the EXIT button.

The enlargement indicator is cancelled.

8 Press the EXIT button.

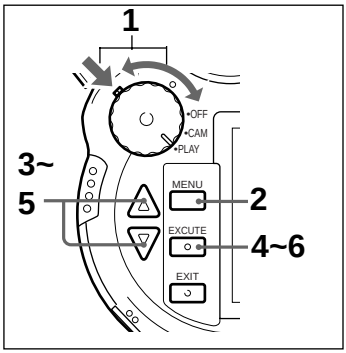
The menu returns to the LCD monitor display.

9 Press the EXIT button.

The menu disappears.

Erasing All Pictures

You can erase all saved pictures that are no longer needed from the card. However, you cannot erase pictures that have been protected.



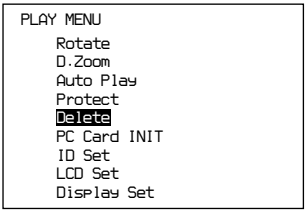
1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The LCD monitor turns on.

2 Press the MENU button.

The menu appears on the LCD monitor.

3 Select “Delete” using the ▲(UP)/▼(DOWN) buttons.



4 Press the EXECUTE button.

The Delete menu appears.

5 Select “All” using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

The message "Do you delete all images?" appears.

Note

To cancel erase, press the EXIT button.

continued on next page

6 Press the EXECUTE buttons.

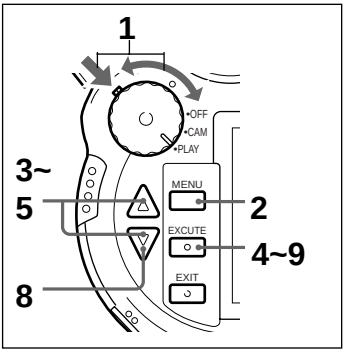
Picture erasing begins.
When deletion is finished, the LCD monitor display returns to the state shown in step 1.

Caution

Do not remove the card during picture deletion. Damage to the Memory Stick or PC Card may occur.

Erasing Selected Pictures

You can erase selected saved pictures, with the exception of protected pictures, from the card.



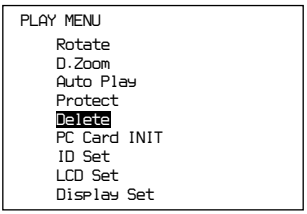
1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The LCD monitor turns on.

2 Press the MENU button.

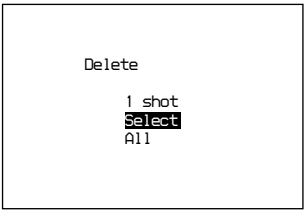
The menu is displayed on the LCD monitor.

3 Choose “Delete” using the ▲(UP)/▼(DOWN) buttons.



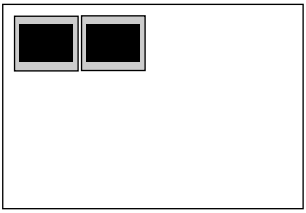
4 Press the EXECUTE buttons.

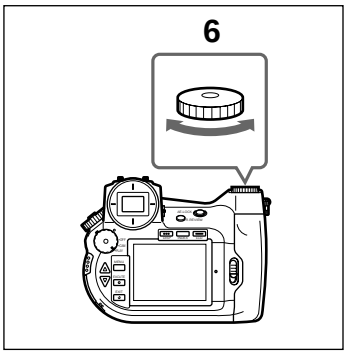
The Delete menu is displayed.



5 Choose “Select” using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

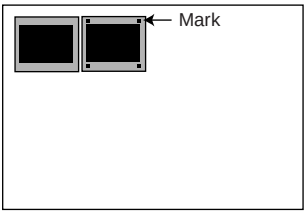
The screen from which to choose pictures for deletion appears.





6 Turn the shift dial to the picture you would like to erase and press the EXECUTE button.

The chosen picture is marked.



Note

Protected pictures cannot be chosen.

7 Repeat step 6 to choose other pictures to be erased.

8 Press the ▼ (DOWN) button.

The message "Do you delete x image(s)?" is displayed. [x] is the number of pictures chosen.

Note

To cancel deletion, press the EXIT button.

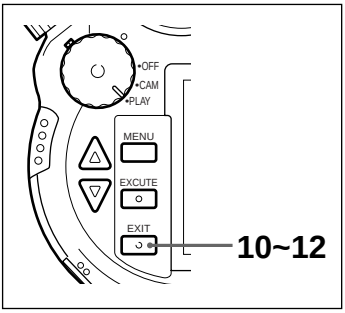
continued on next page

9 Press the EXECUTE button.

Picture erasing begins.
When deletion is finished, the LCD monitor returns to the state shown in step 5.

Caution

Do not remove the card during picture deletion. Damage to the Memory Stick or PC Card may occur.



10 Press the EXIT button.

The LCD monitor display returns to the state shown in step 4.

11 Press the EXIT button.

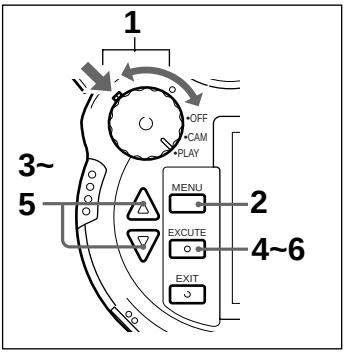
The LCD monitor display returns to the menu.

12 Press the EXIT button.

The menu disappears.

Erasing Pictures during Playback

You can erase pictures shown on the LCD monitor during playback. However, protected pictures cannot be erased.



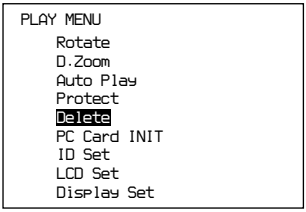
1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The LCD monitor turns on.

2 Press the MENU button.

The menu is displayed on the LCD monitor.

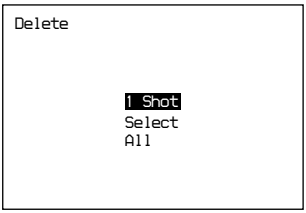
3 Select “Delete” using the ▲(UP)/▼(DOWN) buttons.



4 Press the EXECUTE button.

The Delete menu is displayed.

5 Select “1 Shot” using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.



The message "Do you delete this image?" appears.

Note

To cancel erase, press the EXIT button.

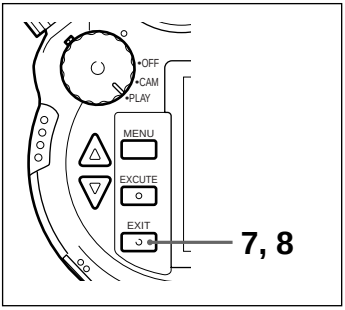
6 Press the EXECUTE button.

Picture erasing begins.
When deletion is finished, the LCD monitor returns to the state shown in step 4.

Caution

Do not remove the card during picture deletion. Damage to the Memory Stick or PC Card may occur.

continued on next page



7 Press the EXIT button.

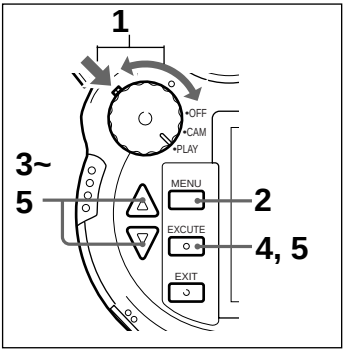
The LCD monitor display returns to the menu.

8 Press the EXIT button.

The menu disappears.

Making it Impossible to Erase Important Pictures (Protect)

You can save pictures from being accidentally erased. This is called "protecting" the picture. You can protect pictures when they are shown on the LCD monitor during playback.



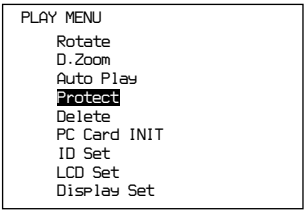
1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The LCD monitor turns on.

2 Press the MENU button.

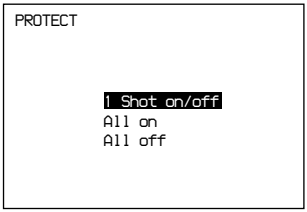
The menu is displayed on the LCD monitor.

3 Select “Protect” using the ▲(UP)/▼(DOWN) buttons.



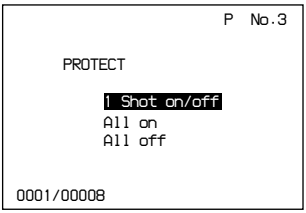
4 Press the EXECUTE button.

The PROTECT menu is displayed.



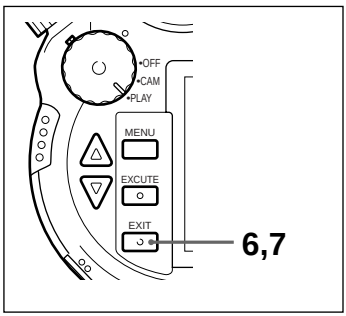
5 Choose “1 Shot on/off” using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

The chosen picture is protected, indicated by a P on the LCD monitor.



Notes

- When you perform the same operation on a picture that has already been protected, the protect function is removed.
- When you select “All on” or “All off” from the PROTECT menu and press the EXECUTE button, all the pictures are protected, or protect is removed from all pictures.



6 Press the EXIT button.

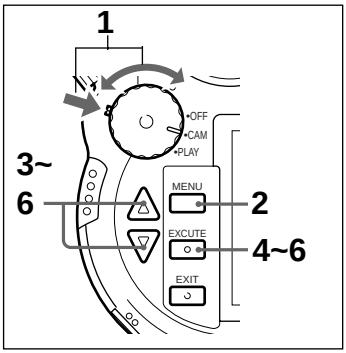
The LCD monitor display returns to the menu.

7 Press the EXIT button.

The menu disappears.

Setting the LCD Monitor Display

You can set whether or not the LCD monitor displays necessary information for playback or taking a picture, such as picture size or AF/AE frame.



1 While pressing the mode lock (green), turn the power/mode dial to CAM.

Note

In this section, setting the LCD monitor display is explained while the power/mode dial is set to CAM, but the same operation can be done while the power/mode dial is set to PLAY.

2 Press the MENU button.

The LCD monitor turns on, and the menu is displayed.

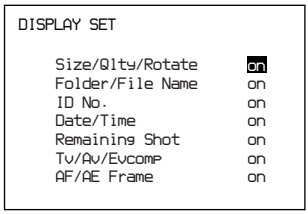
3 Select “Display Set” using the ▲(UP)/▼(DOWN) buttons.

4 Press the EXECUTE button.

The display set menu appears.

5 Select the item you want to set using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.

The selected item is ready to change.



6 Select “on” or “off” using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

Items which can be set are listed below:

Size/Qlty/Rotate (Picture size/Picture quality/Rotation)

Folder/File Name

ID No. (Keyword)

Date/Time

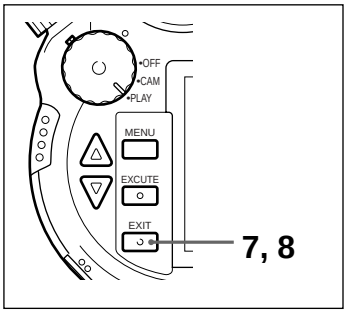
Remaining Shot

Tv/Av/Evcomp (Shutter Speed/Aperture/EV compensation)

AF/AE Frame

When each item is set to on or off, the LCD display returns to the state shown in step 3.

If you want to change the settings of other items, return to step 5 and repeat the same operation.



7 Press the EXIT button.

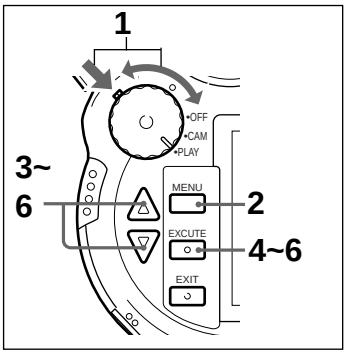
The LCD monitor display returns to the menu.

8 Press the EXIT button.

The menu disappears.

Adjusting Picture Display on the LCD Monitor

Adjusts picture display items such as contrast, brightness, and display range on the LCD monitor.



1 While pressing the mode lock (green), turn the power/mode dial to PLAY.

The LCD monitor turns on.

2 Press the MENU button.

The menu is displayed on the LCD monitor.

3 Select “LCD Set” using the ▲(UP)/▼(DOWN) buttons.

```
PLAY MENU
    Rotate
    D.Zoom
    Auto Play
    Protect
    Delete
    PC Card INIT
    ID Set
    LCD Set
    Display Set
```

4 Press the EXECUTE button.

The LCD set menu is displayed.

5 Select an item using the ▲(UP)/▼(DOWN) buttons and then press the EXECUTE button.

You can set the chosen item.

```
LCD SET

    Contrast      0
    Bright        0
    Color         0
    Picture       0
    Disp Area     Normal
```

6 Choose a value using the ▲(UP)/▼(DOWN) buttons and press the EXECUTE button.
The items you can set are listed below:

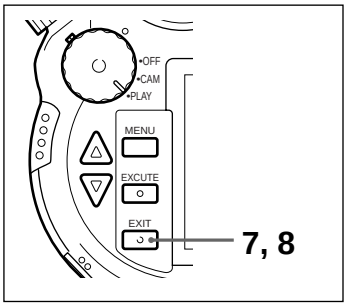
Contrast, Bright, Color or Picture

Contrast, brightness, color density or picture sharpness can be set within a -10 to +10 range (in units of 1).

Disp Area (Display area)

When NORMAL is chosen, the picture is displayed after being resized to fit the frame 100%.
When OVER is chosen, the picture is displayed without being resized.

When the values for the chosen items have been set, the LCD display returns to the state shown in step 5.
If you want to set another item, repeat the same operation from step 5.



7 Press the EXIT button.

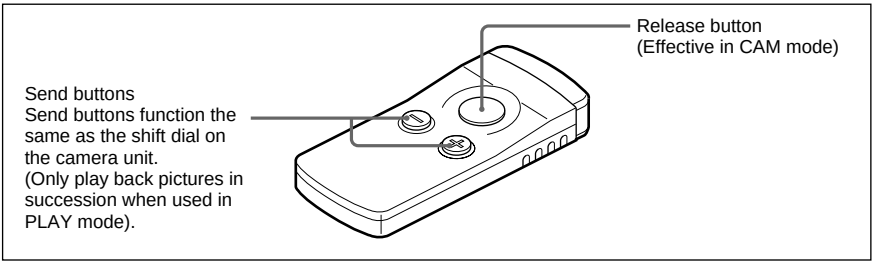
The LCD monitor returns to the menu.

8 Press the EXIT button.

The menu disappears.

Operating the Wireless Remote Control

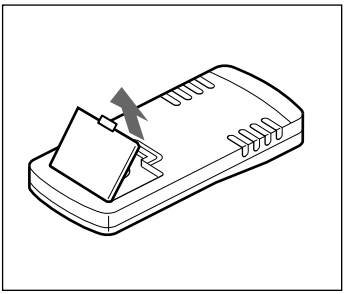
Using the supplied wireless remote control RM-S7D, you can perform the same release button and shift dial operations as on the camera unit.
The remote control is convenient when you want to take pictures away from the camera or for playing back pictures on a television.


Release button
(Effective in CAM mode)
Send buttons
Send buttons function the same as the shift dial on the camera unit.
(Only play back pictures in succession when used in PLAY mode).

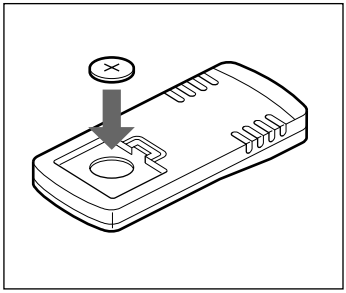
Note

The self-timer lamp on the front of the camera lights up briefly as signals from the remote control are received.
When you push the release button with the focus mode switch set to AF, the focus is automatically set before the picture is taken. There is a short time lag from the time you press the release button until the picture is taken.
If you want to take a picture without the time lag set the focus mode switch to MF. After manually adjusting the focus, press the release button to take the picture.

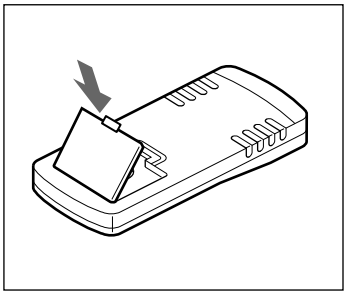
Inserting the Battery into the Remote Control



1 Slide the battery cover in the direction of the ▲ mark while pushing the cover.



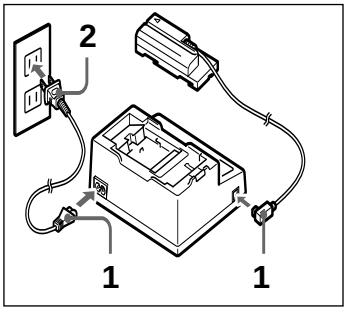
2 Insert a lithium button battery CR2025 into the battery case, making sure the + (plus) side is visible.



3 Return the battery cover to its original position.

Using a Wall Socket

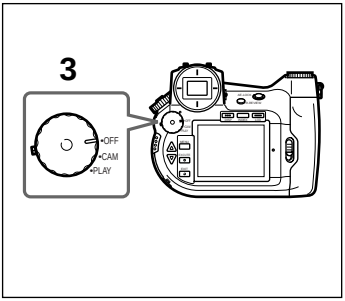
To take or play back pictures without using a battery, plug the camera into a wall socket using the battery charger AC-V700 (not supplied) and DC power cable DK-415 (supplied with the AC-V700).



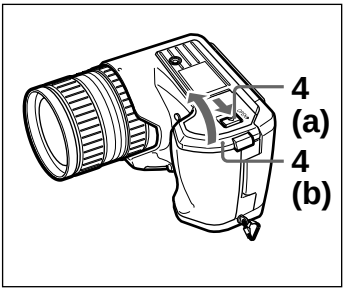
1 Connect the DC power cable and the AC power cable to the battery charger.

2 Plug the AC plug from the power cable into the wall socket.

continued on next page

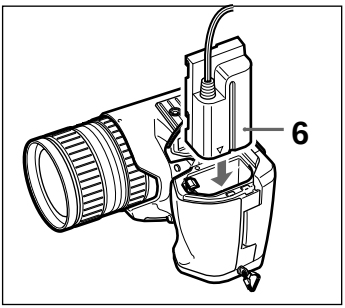


3 Make sure the power/mode dial on the camera is set to OFF.



4 Slide the battery cover lock in the direction of the ▲ mark (a), and open the battery cover (b).

5 Remove the rubber from inside the battery cover.



6 Insert the DC power cable connector ▲ mark side first into the battery case until it locks firmly into place.

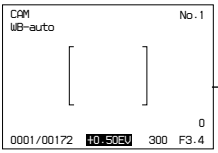
7 Put the cable into the battery cover groove and close the battery cover.

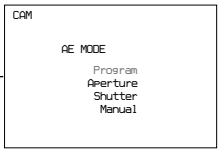
Menu Summary

There are three menus in the camera: Shooting Menu, Camera Menu, and Playback Menu.

Mode Menu

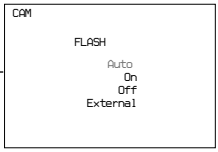
The menu for setting shooting conditions. To call up this menu, set the power/mode dial to CAM, turn the mode dial and press the shift button.





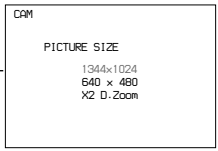
Shooting Mode

Sets the exposure. Choose from Program AE (Program), Aperture Priority AE (Aperture), Shutter Speed AE (Shutter) or Manual Exposure (Manual). → Page 51



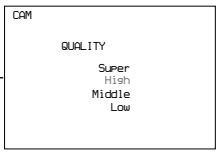
Flash

Sets the flash. Choose from Automatic Flash (Auto), On (On), Off (Off), or External Flash (External). → Page 74



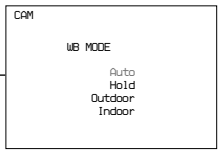
Picture Size

Sets the picture size. Choose from 1344 × 1024, 640 × 480, or ×2 D. Zoom. → Page 53



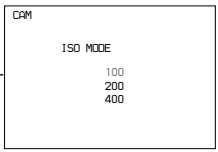
Picture Quality Mode

Sets the picture quality. Choose from Super, High, Midle, or Low. → Page 54



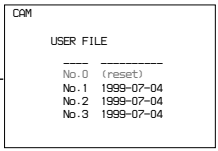
White Balance Mode

Sets the method of white balance adjustment. Choose from Auto White Balance (Auto), White Balance Hold (Hold), Outdoor, or Indoor. → Page 57



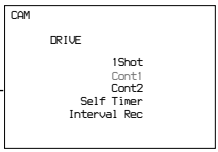
ISO Sensitivity

Sets the ISO sensitivity. Choose from ISO 100, 200, or 400. → Page 59



User File

Resets setting content and reads the setting content that has been saved as user files. → Pages 62, 64



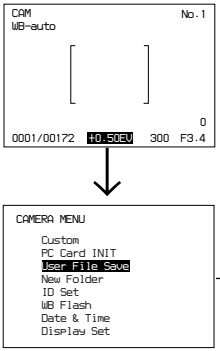
Shooting Method

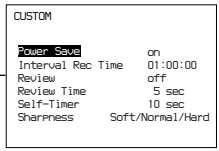
Sets the shooting method. Choose from Normal Shooting (1 Shot), Continuous Shooting 1 (Cont1), Continuous Shooting 2 (Cont2), Self-Timer, or Interval Shooting (Interval Timer). → Pages 78, 80, 81

continued on next page

Camera Menu

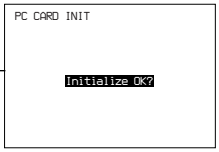
The menu for setting the shooting conditions and functions of the camera. To call up the camera menu, turn the power/mode dial to the CAM mode position and press the MENU button.





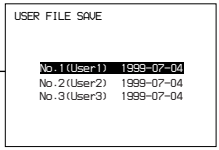
Miscellaneous Settings

Sets each function of Auto Power Off, Interval Shooting, Review, Self-Timer, and Sharpness. → Page 71



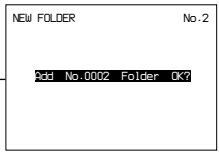
Card Initialization

Initializes the card inserted in the camera. → Page 30



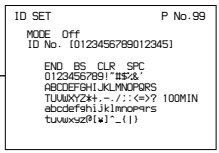
User File Save

Saves the content set by the mode dial and the content set in the custom menu as user files. Up to 3 user files can be saved. → Page 63



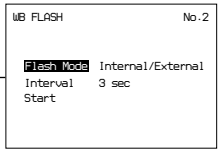
New Folder

Creates folders in which to save pictures. → Page 65



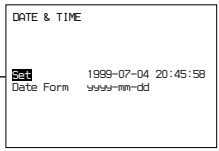
Keyword Setting

Attaches a keyword of up to 16 letters to a picture. → Page 66



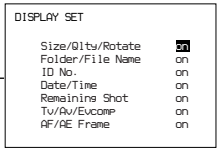
White Balance Setting (with Flash Use)

Adjusts white balance when using a flash. → Page 76



Date and Time Setting

Uses a clock built-in to the camera to record the correct time and date. → Page 26

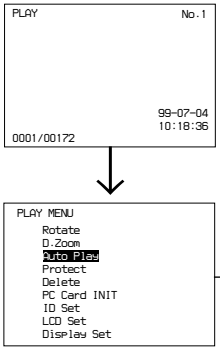


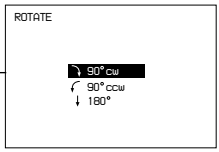
LCD Monitor Display Setting

Sets whether or not information necessary for shooting or playing back a picture such as picture size and AE/AF frame is displayed on the LCD monitor. → Page 94

Playback Menu

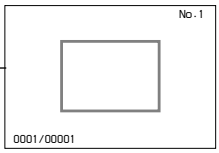
The menu for setting different picture and playback options. To call up the menu, turn the power/mode dial to the PLAY position and press the MENU button.





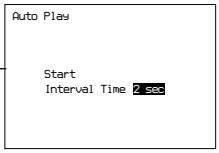
Picture Rotation

Rotates a picture 90° clockwise or counter-clockwise, or 180° during playback. → Page 83



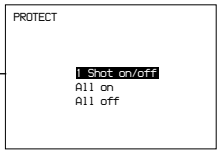
Picture Enlargement

Enlarges and displays a detail of a picture during playback. → Page 84



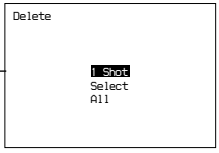
Automatic Cycle Viewing

Pictures are played back one by one, automatically, on the screen. → Page 40



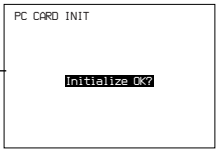
Protect

Saves important pictures from being accidentally erased. This is called "protecting" the picture. → Page 92



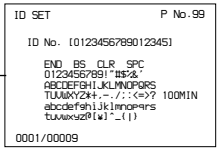
Erasing Pictures

Erases unnecessary pictures saved on a card. → Page 87



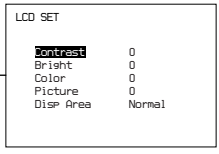
Card Initialization

Initializes the card inserted in the camera. → Page 30



Keyword Setting

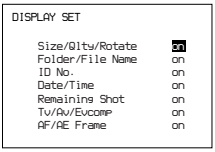
Attaches a keyword of up to 16 letters to a picture. → Page 66



LCD Monitor Picture Display Fine Tuning

Sets whether or not necessary information for picture taking or playback, such as picture size or AF/AE frame, is displayed on the LCD monitor. → Page 96

continued on next page



LCD Monitor Display Setting

Sets whether or not necessary information for picture taking or playback, such as picture size or AF/AE frame, is displayed on the LCD monitor. → Page 94

Maintenance

Maintenance of the Camera Surface

If the camera surface gets dirty, lighty wipe with a dry cloth. If the camera is very dirty, wipe with a cloth moistened with a small amount of neutral detergent and wipe dry.

- When using a chemical cleaning cloth, follow the manufacturer's instructions.
- Do not use volitile liquids such as alcohol, thinner or benzine on the camera surface. They will remove paint from the surface finish.

Maintenance of the Lens Surface

Remove dust on the lens surface with a blower brush or soft cloth. If the lens is very dirty, wipe gently with a soft cloth or lens cleaning tissue, taking care not to scratch the lens surface.

Condensation

Condensation may form on the lens when the camera is brought from a cold place to a warm place. There is no warning indicator to signal condensation on the lens. If you detect moisture, turn off the power and wait about one hour for the condensation to dissipate.

Troubleshooting

Before bringing in your camera for servicing, check the following table as a guide to troubleshoot the problem. If the problem cannot be corrected, contact your Sony dealer or Sony Customer Service. If messages you are unfamiliar with appear in the viewfinder, or on the LCD panel or LCD monitor, refer to “Warning Indicators” on page 109.

Symptom	Cause	Corrective Action
Camera is inoperable.	Battery pack is empty. (battery warning indicator displays)	Charge the battery pack. (page 23)
	AC power adaptor/charger is not firmly connected.	Check the DC power cable and AC power cable connection. (page 99)
	Internal system is malfunctioning.	Disconnect the battery or power cable, wait one minute and reconnect. Turn the power on and check to make sure the camera is functioning correctly.
Power cuts out.	When the power/mode dial is set to CAM, monitor turns off if you don't operate it for about 1 minute (3 minutes in PLAY). Camera turns off completely if not operated for another 4 minutes (in CAM) or another 2 minutes (in PLAY).	Press the release button halfway or operate the power/ function dial to restore power.
Battery power depletes quickly.	Battery pack is not charged enough.	Charge the battery fully. (page 23)
	Battery has reached the end of its life.	Replace it with a new chargeable lithium ion battery. (page 24)
Cannot take pictures.	Power/mode dial is not set to CAM.	Set the power/mode dial to CAM.
	The card has reached the picture taking limit.	Erase unnecessary pictures before taking more pictures. (page 87)
	The battery needs recharging.	Charge the rechargeable lithium ion battery. (page 23)

Symptom	Cause	Corrective Action
Auto focus does not work.	AF switch is set to MF (manual focus)	Set the AF switch to AF (auto focus).
	Pictures are being taken in conditions where auto focus does not work.	Manually set the focus. (page 38)
Picture is dark.	Subject is backlit. There is insufficient light.	Correct the brightness. (page 56)
When shooting a bright subject, vertical lines appear on the picture.	These lines are called "smears."	The camera is not malfunctioning.
Black dots appear on LCD monitor or red, blue, and green dots cannot be erased.	Extremely precise technology is being used for the liquid crystal display.	The camera is not malfunctioning. The dots will not be recorded.
LCD display in the viewfinder is blurry.	The eyesight level is not properly adjusted.	Adjust the viewfinder focus to suit your eyesight. (page 34)
Picture is improperly exposed.	EV compensation is set.	Set the EV compensation to +/- 0 and try shooting again. (page 56)
	The camera is in shutter speed priority AE mode and has been set to an inappropriate speed.	Change the shutter speed to a more suitable speed using the shift dial. (page 51)
Picture is improperly exposed when using the flash.	The flash is too far from the subject.	Use the flash within a range of approx. 1.0 m to 2.5 m.
The flash does not work.	There is enough light, and the flash is not necessary. (when the flash is set to “Auto”)	When you want the flash to always go off, set it to “On”. (page 74)
	The flash is set to “Off”.	Set the flash to “Auto” or “On”. (page 74)

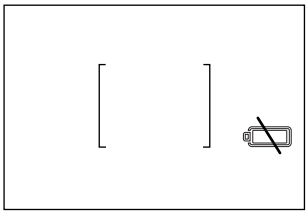
continued on next page

Symptom	Cause	Corrective Action
Picture is not recorded when you press the release button.	A card is not inserted in the camera.	Insert a card in the camera. (page 29)
	There are no more remaining shots.	Insert a new card.
		Change the picture quality or erase unnecessary pictures. Check the remaining shot number and try again. (pages 54, 87)
Vertical lines appear around lights or candle flames, etc., shot against a dark background.	This occurs when there is a strong contrast between the background and the subject.	The camera is not malfunctioning.
Auto focus does not work when shooting at night.	Auto focus may not work when taking pictures at night, or if the subject is dark.	Manually set the focus.
Camera will not play back.	Power/mode dial is not set to PLAY.	Set the power/mode dial to PLAY.
	The battery needs to be charged.	Charge the battery pack. (page 23)
	There are no pictures saved on the card.	Take a picture and save it on the card.
Cannot erase a picture.	The picture is protected or the card itself is write-protected.	Cancel the protect function. (page 92) If the card is write protected, turn the write-protect switch to OFF.
There is interference on the picture or LCD monitor.	The camera is near equipment with strong electromagnetic radiation, such as a TV.	Move the camera away from such equipment.

Warning Indicators

LCD Monitor

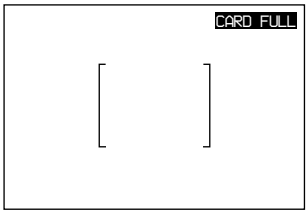
The following warning indicators appear on the LCD monitor.



Low Battery Charge Indicator

When the battery voltage becomes low, the remaining battery time indicator on the LCD monitor changes to the indicator.*

* When using the AC power adaptor/charger, this indicator does not appear.



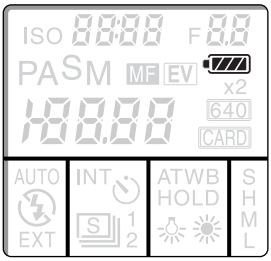
No Shot Available

If you press the release button when the picture file on the card is full, the message CARD FULL is displayed in red for 4 seconds.

To remove this indicator, erase pictures from the file or insert a new card.

LCD Panel

The following warning indicators appear on the LCD panel.



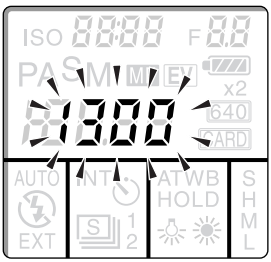
Battery Indicator

As the battery voltage becomes low, is indicated on the LCD panel.

The battery indicator changes as follows:

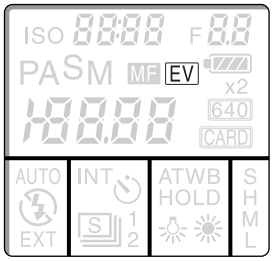
Battery Indicator	Battery Charge Amount Standard (A fully charged battery is 100%)
	100 to 80%
	80 to 60%
	60 to 40%
	40 to 20%
	20 to 10%
Flashing	Camera operation will stop within 1 minute. Change with a charged battery pack.

*When using the AC power adaptor/charger, this indicator does not appear.



No Shot Available display

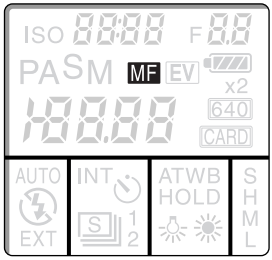
When no further image files can be recorded on the file, the image number flashes to indicate that the card is full.



EV Indicator

The letters EV appear whenever EV compensation mode is on.

When EV compensation is turned to +/- 0.0, the indicator does not appear.



Auto Focus Off Indicator

When the AF switch is turned to MF (manual focus), the MF indicator appears.

Error Messages

The following messages are displayed on the camera's LCD monitor or LCD panel or in the viewfinder. Refer to list below for the meaning of the error message.

Message on LCD Panel or in Viewfinder	Message on LCD Monitor	Meaning and Corrective Action
Card	NO CARD	A card is not inserted. → Insert a card into the camera. (page 29)
Full	CARD FULL	The maximum number of pictures has been recorded on the card. → Erase unnecessary pictures (page 87) or insert a new card. (page 29)
Err03	IMAGE FULL	Number of created files on the card has reached 9999. → Erase unnecessary files (page 87) or insert a new card. (page 29)
Err04	IMAGE NO. FULL	Picture file names have reached 99,999. → Format card to save pictures on the computer (page 30) or insert a new card. (page 29)
Err05	FOLDER FULL	The maximum number of folders has been reached. → The maximum number of folders possible is 510. (page 65)
Err06	FOLDER NO. FULL	Folder names have reached 9,999. → Numbers above 9,999 cannot be attached to folder names. (page 65)
Err07	NO IMAGE	A card on which no pictures had been recorded was attempted to be played back. → Take pictures on the card and try again. (page 34)
Err08	ONLY 1 IMAGE	A card which had one or fewer pictures on it was attempted to be played back in cycle viewing mode. → After taking at least 2 pictures (page 34), try cycle viewing again. (page 40)

Message on LCD Panel or in Viewfinder	Message on LCD Monitor	Meaning and Corrective Action
Err09	PROTECTED	A protected picture was attempted to be erased. → Cancel protect and try again. (page 92)
Err10	WRITE PROTECT	A picture was attempted to be taken or erased on a write-protected card. → Set the write-protect switch on the card to OFF and take or erase the picture.
Err11	NO ROTATION INFO	Rotation was attempted on a picture that was not recorded by the camera. → Only pictures recorded by the camera can be rotated. (page 83)
Err12	NO ID INFO	A keyword was attempted to be added to a picture that was not recorded by the camera. → Keywords can only be added to pictures recorded by the camera. (page 83)
Err13	DATE & TIME NOT SET	The lithium button battery used to maintain the internal clock has run out. → Contact your nearest Sony dealer or Sony Customer Service. (page 27)
Err14	FORMAT ERROR	A card that cannot be used in the camera is inserted. → Initialize the card in the camera (page 30), or insert a card that can be used. (page 28)
Err15	READ ERROR	A picture that has not been recorded by the camera or has damaged data is attempted to be played back. → Play back a picture recorded by the camera or that is undamaged.
Err16	WRITE ERROR	The picture could not be recorded properly on the card. → Retake the picture.
——	BUSY	The card is being accessed. The indicator disappears when access is complete. → Wait until the indicator disappears.

Specifications

General

Power source	InfoLITHIUM battery pack NP-F550 (not supplied) or AC power adaptor/charger AC-V700 (not supplied)
Power consumption	0.9 A, DC7.2 V when shooting (with LCD monitor on)
	0.6 A, DC7.2 V when playing back (with LCD monitor on)
Operating temperature	0°C to +40°C (32°F to 104°F)
Storage temperature	–20°C to +60°C (-4°F to 140°F)
Dimensions	130× 100× 150mm (5 1/5× 4× 6 inches)(W× H× L)
Mass	820 g approx. (excluding the battery pack and PC Card)

System

Camera type	Digital still camera
Picture quality modes	Super – TIFF (Non compression) High, Middle, Low – JPEG (compression)
Recording medium	PCMCIA ATA TYPE II card
	Sony Memory Stick (for use with Memory Stick/PC Card Adapter)
Picture elements	1/2 inch single-plate, solid-state picture element (all elements read)
	Total dot number: 1,500,000 pixels approx.
Optical viewfinder	Focusing screen with built-in double imaging, single ref type
LCD monitor	2.5" low-temperature, polysilicon TFT with 1,800,000 pixels
Minimum focal length	20 cm (focal distance for the whole area)
Aperture	F2 to F11 (wide angle)
	F2.4 to F11 (telephoto) variable
Shutter speed	4 to 1/2000 sec. (In AE mode, 1/30 to 1/2000 sec.)
	combined use mechanical shutter and electric shutter
Continuous shooting speed	Maximum 2 frames/sec. (Picture quality mode is low, size is 640× 480)

Lens	5× zoom
	f = 5.2 to 26mm (equivalent to 28 to 140 for 35mm film cameras), 13 lens, 10 group, filter diameter: 62mm
Photographic sensitivity	ISO 100, 200, 400
Focus control	CCD TTL auto/manual focus mechanism
Light Meter	Central focusing average light meter/SPOT light meter, AE LOCK function
Exposure control	Program AE, shutter speed priority AE, aperture priority AE, manual exposure
EV compensation	–2 to +2 EV (0.25 EV increments)
Internal flash	External light sensor, self-adjusting system: adjusts to all shutter speeds
	Guide Number: GN10
	Range: 1.0 to 2.5 meters approx. (ISO 100, without EV compensation)
	Flash modes: Auto/On/Off
White balance	Auto/One push hold/Indoor/Outdoor

Input/Output Terminals

Video output terminal	NTSC model: 1.0Vp-p 75Ω, unbalanced, sync negative
	PAL model: 1.0Vp-p 75Ω, unbalanced, sync negative
Hot shoe	For use with external flash

continued on next page

Accessories

Viewfinder cap (1)
Lens cap (fitted on the lens, 1)
Video cable (1)
Wireless remote control (1)
Memory Stick (1)
Memory Stick/PC Card Adaptor (1)
User's manual (1)
Rechargeable battery pack NP-F550 (1)
Battery charger BC-V615 (1)
Neck strap belt BLT-10(H) (1)
PC Card/parallel port adaptor MSAC-PR1 (1)

Design and specifications are subject to change without notice.

Accessories (not supplied)

Memory Stick	MSA-4A (4MB), MSA-8A (8MB)
Memory Stick/PC Card kit	MSAKIT-PC4A
Semi-soft case	LCM-D700
AC adaptor/charger	AC-V700

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